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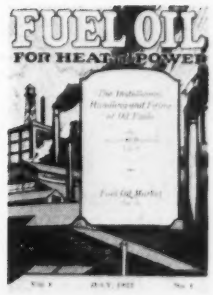
fueloil & oil heat

35 Years devoted to Progress in Oilheating and Airconditioning

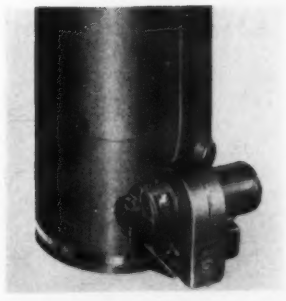
The first 35 Years

The Author finds the Past interesting, the Future challenging 49



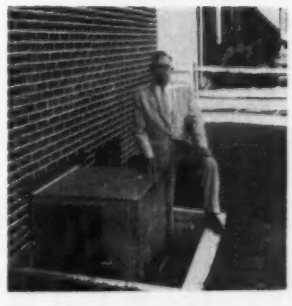
Get in hot Water!

Men 100% Fueloil-minded gain Much by recommending oilfired water Heaters 76



Care for their every Need

McIntire successfully adds Cooling to a highly-refined oilheating Business 59



Proposal for UL-OHI quality Label endorsed during Boston Convention 74

Where gallonage measurement

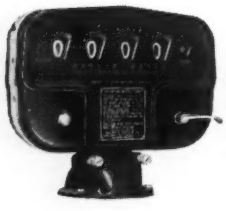
actually COUNTS

There are *two basic points* to consider in selecting a meter – the high sustained accuracy and continuous low maintenance performance of the positive-displacement measuring unit – *plus* an efficient counter designed for use with that measuring unit to convert measurement into recorded figures.

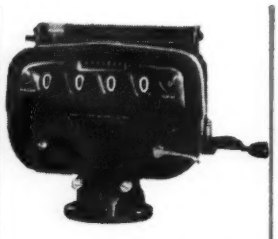
Brodie Meters and Brodie Counters are designed and built by Brodie to function as a complete unit of one manufacture to provide maximum dependability and low-cost performance.

Coupled with the wide assortment of counter arrangements, they meet every stock-handling requirement.

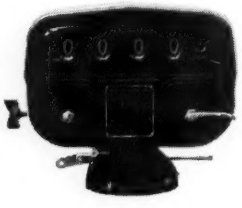
...IT TAKES THE PERFECT COMBINATION OF BOTH METER AND COUNTER TO GIVE YOU THE BEST IN METERING!



Easy reading Brodimatic Counters with reset and totalizer.

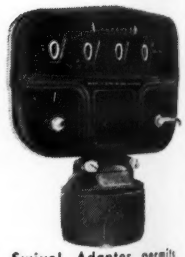


Brodimatic Printers with zero start or totalizer



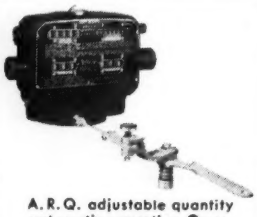
Brodimatic Quantrols, fully automatic quantity control. Available with printer

45° Angle Adaptor, easy reading for below-eye-level or horizontal installations.



Swivel Adaptor permits counter to be rotated full 360° while operating or idle.

S.R.Q. single quantity repeating Quantrol for production line filling, batching, blending.



A.R.Q. adjustable quantity automatic repeating Quantrol fills cans, drums, etc.

Right Angle Adaptors and Extensions allow full flexibility of installation.

Series "G" Counters for compact installation, with reset and totalizer.

Remote Counter Systems for in-the-office control of transfers and records.

BRODIE BiRotor METERS

ALL-STEEL TRUE ROTARY

RALPH N. BRODIE COMPANY · San Leandro, California, U.S.A.

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REPRESENTATIVES WITH STOCKS AND SERVICE FACILITIES IN ALL PRINCIPAL CITIES

JULY fueloil & oilheat 1957

VOLUME 16 NUMBER 7

Publication and Editorial Office: 2 West 45th St., New York 36, N. Y.

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YEARLY: $3.00

CANADIAN: $3.00

SINGLE COPY: $1.00

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PUBLISHED MONTHLY
BY HEATING PUBLISHERS, INC. ADDRESS CORRESPONDENCE FOR EDITORIAL, ADVERTISING AND CIRCULATION DEPARTMENTS TO: 2 WEST 45TH STREET, NEW YORK 36, N. Y. PUBLICATION OFFICE: 109 MARKET PLACE, BALTIMORE 2, MD. ESTABLISHED 1922. N. Y. PHONE: MURRAY HILL 2-4786. ENTERED AS SECOND CLASS MATTER AT THE POST OFFICE AT BALTIMORE, MD.

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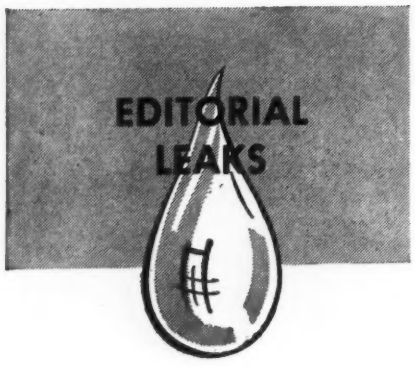
Among other things . . .

As you've learned, we suspect, this is our 35th year of publication and July was the birthday. In addition to Mrs. Becker's story on the early industry, John Schulz has some thoughts on product development through the many years. Then we were very happy to get notes of congratulation (or sympathy) from a good number of the oilburner manufacturers of the 1920's.

The Boston exposition and annual convention of OHI come in for considerable space this time. Logically so, because they're important milestones in our progression, whether it's the industry's thirty-fifth year or its fifth. The amount of special thinking and designing that goes into strong conventions and displays causes men to make up their minds and take a positive stand for public consumption.



BEFORE YOU'VE waded very deep in this issue you will probably discover that it's our 35th Anniversary number. Just why anyone should celebrate the 35th instead of the 36th will never be quite clear, but the general idea is that five is a magic divisor so every fifth of anything is a sort of milestone.

Naturally the object in mentioning that we're so old is to demonstrate that we must be hardy to stay in the oilheating business that long. Either that, or the dealers are made of stern stuff to put up with us for that many years and keep renewing their subscriptions.

Either way, it has been a source of stimulation to everyone who has worked on "Fueloil" through the years to recall that we were pacing the floor when the industry was born. Then we helped it make all the mistakes of childhood and adolescence and feel better now that everyone is grown up.

Actually, if there was any need to prove that we're older than 35 years, the venerable *Fueloil Journal* was first published in October 1911 at Houston, Texas, and its first issue shows as publisher and editor Holland S. Reavis, who was later to start the fabulous *"Oil & Gas Journal."*

Leafing through that first issue, we see strange goings-on. For example, "Reasons for the Decrease in the Texas Company's Earnings." Or maybe this one, "California Production too High and Fuel Oil Prices are Low." This was certainly news, "John D. Rockefeller retires, succeeded by John D. Archbold." The most interesting ad shows a 20 hp Hupmobile runabout for $800 complete with doors and lights but no top.

The reason we don't use the 1911 date and claim to be a lot older than 35 years is that it was in 1922 that the first real oilheating magazine, *Fueloil for Heat & Power,* came into being. Its publisher a few years later bought out the publisher of *Fueloil Journal* and that name was adopted for the newer magazine. Of course it merged in 1942 with *Oil Heat* and got its present name.

And thus, children, endeth the history lesson for the next five years . . . we'll tell you again in 1962, D.V.

SOME OILHEATING ECONOMISTS are saying that there's too much loose talk going around about prices for oilheating equipment, and we agree.

A low price is more dramatic than a high one and it's repeated far more often by the trade gossips who love to point with alarm.

There are a half dozen manufacturers of separate oilburners whose principal market is the makers of furnaces and boilers. They will sell such a burner without any controls, and sometimes without nozzles, for $39 or $40. They sell them in large quantities, have little overhead and small sales expense.

But that doesn't mean that manufacturers across the board are working at such levels . . . yet these stories going around the industry meetings frighten a lot of good people.

The dealer is the backbone of the industry as almost any manufacturer will concede. Any dealer can buy a cheap burner, sometimes with a reputable name. Yet relatively few of them do. And it's because they are more interested in eventual profits, sustained profits that come through established reputations than they are in the last word in "what's cheap."

Several hundred dealers report to us in confidence what they pay for things and what they sell them for. These are large dealers, small dealers, Eastern, Midwest and Western.

Last year they paid an average of $97 for the minimum size separate burner (we used to call them conversion burners). They paid $340 for the minimum size boiler-burner unit and $280 for the smallest average furnace burner unit.

The individual burner price at $97 was up $2 from 1955. Its postwar peak was in 1947 at $107; its lowest price for all time was in 1940 at $63.

In May of this year the dealers paid for this smallest separate burner an average of $96.25.

It's true that nearly two-thirds of all installations today are complete units, not separate burners. It's likewise true that manufacturing competition gets keener by the day with the coming of big new elements into the picture. Yet anyway you slice it, you can't get around the conclusion that price conditions are better at the dealer level. The O.E.M. burners are not the whole industry, neither are the wholesalers in Brooklyn. This is a big industry, a big country and there's gold in a lot of the hills.

WORKING CAPITAL is mighty important to a fueloil distributor. The subject came up the other day in discussing an item published in *Coastal Oil Way,* put out by Coastal Oil Co., Newark. The author was showing that the customary 1% ten day discount on oil purchases increases the net profit 12% for the average firm.

It's easy to figure. The wholesale cost of No. 2 oil is around 12¢; the average net profit is about a cent. A thousand gallons carries $100 profit and the 1% cash discount affects this amount by $12.

So either keep your collections up to date, or borrow from your wife's relatives, but do take the discount.

OILHEATING IS GAINING strength over a lot of the world these days. In point of market saturation, most European countries are about where we were 25 years ago. They will probably build up faster because they can learn from our mistakes and successes.

American manufacturers are doing some good business overseas. This came to notice in scanning the April issue of the French magazine, "Thermique Appliquee." The back cover ad is by Oil-O-Matic and the inside front cover advertises Gilbarco burners.

THIS PAGE can't go to press without some mention of gas. Here it is: The Federal Power Commission reports pipe line quantities are up 11.1% this year, but the gas cost them 17.3% more.

first . . . and still *first*

Scully's VENTALARM® GAUGE

One single unit combining the original SCULLY Whistling Tank Signal with a Tank Gauge.

Manufactured under the following U.S. Patents now in full force and effect: 2,720,216, 2,716,389, 2,531,950, Des.164,453.

See your Dealer for a Deal.

SCULLY SIGNAL COMPANY

174 Green St., Melrose 76, Mass.

Canadian Branch: SCULLY SIGNAL LTD., 10 Hafis Street, Toronto, Ontario

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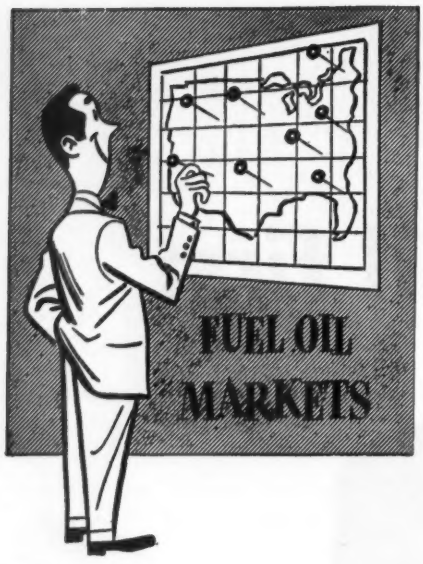


THE PRICE TABLE this month, particularly in the tank wagon column, is not too firm. The dating is the 15th of the month as usual, but we actually waited until the 19th before putting it to bed to see if it would shake down into a clean pattern. It did not.

Some East Coast suppliers are charging more and some less than the prices shown. But we're hoping by next month we can come closer to a situation that is generally acceptable.

Esso reduced East Coast prices at both levels by .3¢ on the 14th. This was generally followed by the industry with a little time lag, but by the 19th Sinclair had gone back up .2¢. In the balance of the country the situation was more stable.

The reason for the uncertain market is, of course, the surplus built up because of the mild season, and the reluctance of refiners to cut back their crude runs.

The heating season this year East of the Rockies was approximately 4.7% warmer than normal based on degree days weighted by the importance of the markets. In Eastern states, it was 4.8% warmer, and in the Midwest 4.6% warmer. The previous season had been 6.1% colder than normal in the East and 4.1% colder than normal in the Midwest. If you add the percentages for the two seasons you will get the degree of change from one season to the next.

In other words, the East Coast this year was 10.9% warmer than last, and the Midwest was 8.7% warmer. Combining the whole area East of the Rockies the season was 10.2% warmer than the previous one. There were only 5.8% more oilburners in use, so the heating oil demand for the first time was substantially below the previous season . . . excepting, of course, the war years.

Notice in the stock table that we had on the 14th of June 30% more distillate fueloil East of the Rockies than we had on the corresponding date last year.

No. 2 Heating Oil (Including No. 3 & PS200)

Price per gallon as of June 15, 1957

	Tank Car	Tank Wagon		Tank Car	Tank Wagon
Portland, Me.	12.1(B)	15.6	Richmond	12.3(B)	15.4
Boston	12.0(B)	15.7	Charleston, S. C.	11.90(A)	14.6
Providence	12.2	15.6	Chicago	11.0*(A)	14.6
Springfield, Mass.	12.25(A)	15.6	Detroit	12.25*	16.2
Hartford	12.25(A)	15.6	Cleveland	12.1*	15.1
New Haven	11.9(A)	15.3	Minneapolis	10.625	15.3
Syracuse	12.1	15.8	St. Louis	11.3*	14.9
Albany	12.1(B)	15.4	Indianapolis	11.8*	15.6
New York	11.9(B)	15.3	Milwaukee	12.35*	15.5
Newark	11.9(B)	15.2	Des Moines	10.50	14.9
Philadelphia	11.1	15.1	San Francisco	11.65*	14.2
Harrisburg	11.1	15.7	Portland, Ore.	12.35*	14.9
Baltimore	11.9(B)	15.3	Seattle	12.35*	15.0
Wilmington, N. C.	11.9(B)	15.0	Spokane	14.25*	16.9
Washington	11.9(B)	15.7	Los Angeles	11.15*	13.7

*Delivered.
Tank wagon prices shown are for maximum one-time delivery discounts.
(A)—Vol. Allow..50¢ (B)—Vol. Allow..80¢.

DEGREE DAY TABLES

——ONE MONTH ONLY——					——SEASON TO DATE——			
	May		Percent		Sept. through May			Percent
Normal	1956	1957	Change*		Normal	1956	1957	Change*
246	370	264	+ 7.3	Albany AP	6888	7343	6721	— 2.4
20	9	31	+55.0	Atlanta AP	2826	2876	2239	—20.7
115	172‡	64	—44.3	Baltimore AP	4782	5031	4202	—12.1
236	304	201	—14.8	Boston AP	5742	6096	5548	— 3.3
315	376	321	+ 1.9	Buffalo AP	6720	6885	6197	— 7.8
29	28	35	+20.7	Charlotte, NC. AP	3205	3255	2610	—18.6
229	212	228	— .4	Chicago AP	6252	6199	5952	— 4.8
108	126	111	+ 2.8	Cincinnati CO	4532	5047	4450	— 1.8
223	265	221	— .9	Cleveland AP	5950	6124	5553	— 6.7
0	0	17	..	Dallas AP	2272	2328	2225	— 2.1
286	143	333	— 6.4	Denver AP	6051	5745	5783	— 4.4
201	149	179	—10.9	Des Moines AP	6384	6885	6116	— 4.2
251	310	281	+11.9	Detroit AP	6336	6497	6015	— 5.1
248	316	300‡	+20.9	Grand Rapids CO	6402	7030	6448‡	+ .7
201	340	212	+ 5.5	Hartford AP	6094	6651	6108	+ .2
399	331	302	—24.3	Helena AP	7951	8472	8094	+ 1.8
0	0	3	..	Houston AP	1388	1236	995	—28.3
176	162	131	—25.6	Indianapolis AP	5581	5749	5108	— 8.5
111	52	69	—37.8	Kansas City AP	4880	5022	4562	— 6.5
68	74	44	—35.3	Los Angeles CO	1432	1511	963	—32.8
94	90	86	— 8.5	Louisville AP	4434	4507	4070	— 8.2
351	370	381	+ 8.5	Milwaukee AP	6944	7169	7019	+ 1.1
259	246	263	+ 1.5	Minneapolis AP	7748	8558	7472	— 3.6
0	0	2	..	New Orleans CO	1175	1174	765	—34.9
153	261	133	—13.1	New York CO	5032	5320	4694	— 6.7
175	114	159	— 9.1	Omaha AP	6123	6683	5773	— 5.7
93	170	126	+35.5	Philadelphia AP	4523	4878	4590	+ 1.5
137	184	118	—13.9	Pittsburgh CO	5035	5579	4638	— 7.9
394	516	331	—15.9	Portland, Me. AP	7493	7855	7334	— 2.1
199	161	143	—28.1	Portland, Ore. CO	4046	4318	4280	+ 5.8
258	365	222	—13.9	Providence AP	6049	6355	5761	— 4.8
81	87	52	—35.8	Roanoke, Va. AP	4152	4100	3375	—18.7
94	66	70	—25.5	St. Louis CO	4462	4640	4237	— 5.0
233	172	238	+ 2.1	Salt Lake City AP	5785	5560	5733	— .9
248	238	215	—13.3	San Francisco CO	2523	2681	2367	— 6.2
499	633	481	— 3.6	Sault Ste. Marie AP	9016	9040	8854	— 1.8
246	179	147	—40.2	Seattle CO	4237	4683	4371	+ 3.2
245	271	236	— 3.6	Toledo AP	6322	6584	6046	— 4.4
87	121	66	—24.1	Washington AP	4337	4514	4012	— 7.5

*Compared with normal. †City Office. ‡Airport.

Distillate Fueloils

PRIMARY STOCKS*

(Thousands of Barrels)

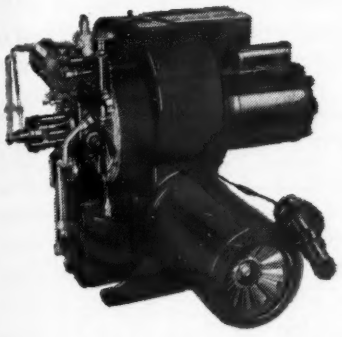
East of Rockies

	June 14 1957	June 15 1956
East Coast	37,550	24,999
Midwest	31,453	25,427
Gulf Coast	22,860	20,040
Total	91,863	70,466

*American Petroleum Institute.

Believe us! We *know* why Cadillac once published an advertisement titled,

"The penalty of Leadership"



No leader can escape the attention of imitators! There's proof of this rule in Cleaver-Brooks' HEV-E-OIL— *today's most-copied heavy oil burner*

As stated in the Cadillac advertisement many long years ago, "In every field of human endeavor, he that is first must perpetually live in the white light of publicity. Whether the leadership be vested in a man or in a manufactured product, emulation and envy are ever at work."

The Hev-E-Oil burner was a standout from the start and continuing research and design refinement further extended initial leadership. Hev-E-Oil features were imitated, of course — not in their entirety but in adaptations and "pick-ups" appearing on a variety of heavy-oil burner designs.

"Jealousy does not protrude its forked tongue at the artist who produces a commonplace painting... The leader is assailed because he is a leader, and the effort to equal him is merely added proof of that leadership."

When introduced eighteen years ago, the Hev-E-Oil burner was (and still is) the first and only burner *successfully* applying the principle of low pressure air atomization of heavy fuel oils *inside the burner nozzle.* At last — a burner that could properly use low-cost, high-heat-content heavy fuel oils, such as No. 5. The early and immediate success of Hev-E-Oil naturally was followed by the usual imitators—competition scrambling to find "something just as good."

"If the leader truly leads, he remains — the leader . . . That which deserves to live — lives.

Consider these Hev-E-Oil exclusives:

- — true air atomizing, with the oil atomized inside the burner nozzle by low pressure air.
- — all air for combustion furnished by the burner independent of natural draft.
- — starting delayed until oil temperature is correct for electric ignition.
- — automatic pressure lubrication with *lubricating oil.*
- — the only line of combination oil and gas burners burning either fuel at maximum efficiency.

These are the Hev-E-Oil burner features that make it so modern it'll be new and unequalled for years to come.

Write Today for Complete Information

CLEAVER-BROOKS COMPANY, BURNER DIVISION, Dept. H, 379 East Keefe Avenue, Milwaukee 12, Wisconsin

Cleaver Brooks

HEV-E-OIL BURNERS — 27 MODELS — 5 GPH TO 90 GPH CAPACITY — INCLUDING COMBINATION HEAVY OIL AND GAS OR, LIGHT OIL AND GAS FIRED MODELS.

Oilheating Trends

MAY INSTALLATIONS of domestic oilheating equipment are estimated at 37,103 which is 15% below the 43,899 installed in the same month last year. For the first five months the estimated total installations are 193,496 which is also 15% below the previous year which saw 227,811 installations in that period.

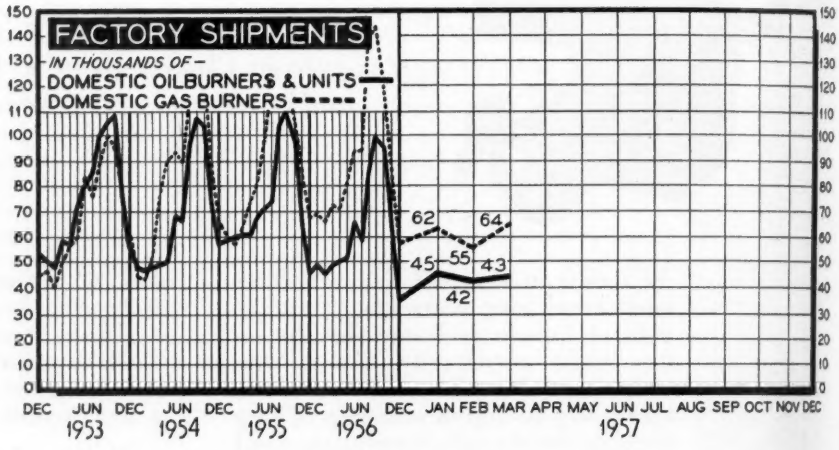
The table of factory shipments shows that for the first quarter they were down only 8.2% which makes it a little hard to reconcile the greater decline in installations. The problem here is that we are making a comparison with last year wherein the installations of the early months were better than the latter part of the year when compared to the normal seasonal pattern. That means that this year our installations have dropped from an abnormally high condition, a situation that is sure to correct itself in a few months.

By types of applications the May installations showed: New homes, 11,699; Replacements of old oil heating equipment, 11,237; and Conversions from other fuels, 14,167. For the full five month period the application totals in the same order are respectively: 68,390, then 52,120 and 72,986.

Burner Stocks: Stocks of domestic oilheating equipment in dealer hands on May 31 were approximately 99,823 compared with 82,163 the previous month and with 112,859 the previous year. The May 31 stocks were divided: Separate Burners, 46,635; Boiler-burner units, 20,357; Furnace-burner units, 32,831.

Tank Stocks: On May 31 customer tanks in dealer hands were approximately 67,735 compared with 45,610 the previous month and with 51,698 the previous year. This significant increase shows that the dealers expect a price rise before too long.

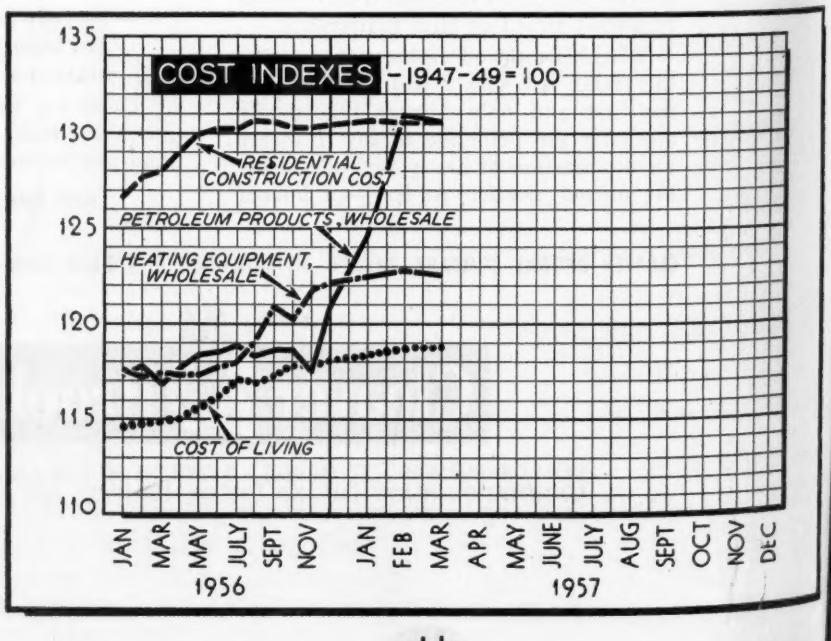
The actual price paid by dealers during May for a 275 gal. tank was $32 compared with $34 in May. It would seem then that stock increase was taking advantage of a dip with the probability of an increase coming.



Shipments of Oilburners and Units
(Including Exports)

Adjusted to include manufacturers other than the 145 reporting to Census Bureau, FUELOIL & OIL HEAT's estimates of shipments are:

	MARCH			THREE MONTHS		
	1957	1956	Percent Change	1957	1956	Percent Change
Separate Burners	27,612	28,732	— 3.9	86,795	92,963	— 6.6
Boiler Units	5,115	5,769	—11.3	12,945	13,195	— 1.9
Furnace Units	9,896	13,253	—25.3	30,021	35,193	—14.7
All Domestic	42,623	47,754	—10.8	129,761	141,351	— 8.2
Commercial	3,291	2,655	+24.0	10,404	8,484	+22.6
Total	45,914	50,409	— 8.9	140,165	149,835	— 6.5


COST INDEXES -1947-49=100
RESIDENTIAL CONSTRUCTION COST
PETROLEUM PRODUCTS, WHOLESALE
HEATING EQUIPMENT, WHOLESALE
COST OF LIVING
JAN MAR MAY JULY SEPT NOV JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC
1956 1957

Minimum Retail Prices of Key Dealers

	May Avg.	Apr. Avg.
Separate Burners	$312	$314
Boiler-Burners	730	724
Furnace-Burners	617	614

Price Index: Separate Burners 1947-49 is 100%

WHOLESALE

May	94.6	Six months ago	95.1
April	95.0	Year ago	93.5

RETAIL

May	92.5	Six months ago	92.5
April	93.2	Year ago	92.1

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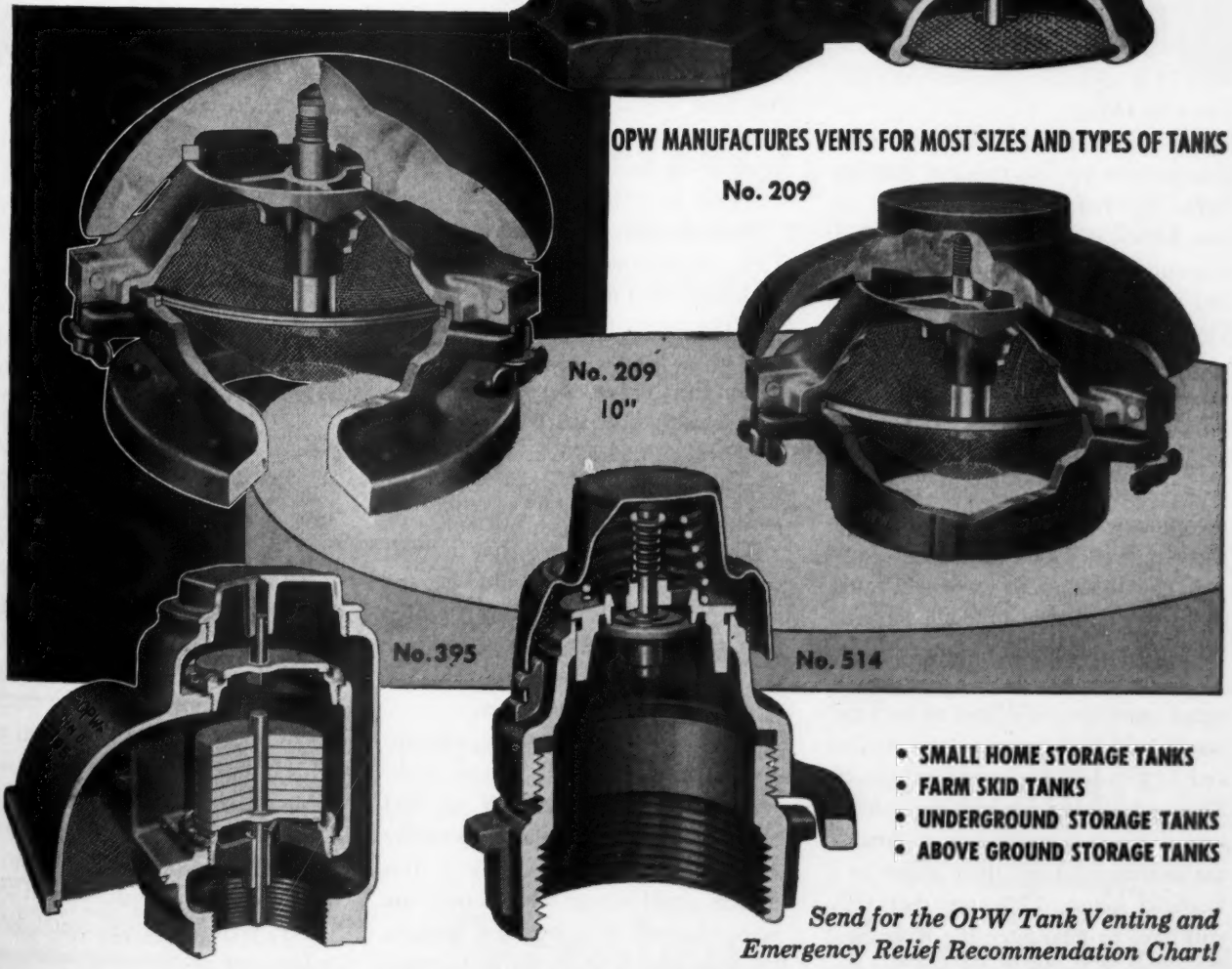
There's a vapor saving OPW Tank Vent for every purpose. Precision machined, product engineered for lifetime use, they are your INVESTMENT against vapor loss due to product expansion and temperature variation. Weighted to specifications, OPW Tank Vents trap and hold vapors and release only at set pressures, insuring maximum protection and dollar dividends. Double mesh screen readily accessible for inspection maintains bulk storage safety.

OPW MANUFACTURES VENTS FOR MOST SIZES AND TYPES OF TANKS



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- FARM SKID TANKS
- UNDERGROUND STORAGE TANKS
- ABOVE GROUND STORAGE TANKS

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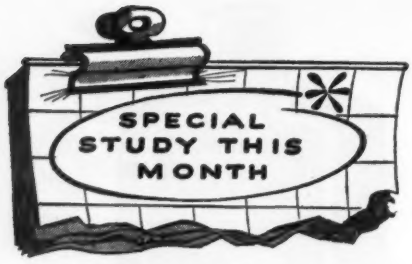


Financing Installations

THERE HAS BEEN considerable discussion about the advisability of offering longer payment terms to stimulate the sale of oilheating equipment. Our special study this month looks into dealer experiences and viewpoints on this subject.

At the start we learn that 48% of of the installations this year are straight cash deals from the purchaser. This is not much of a departure from earlier years for we find back in 1950 that just 50% of the sales were for cash and this did get up to 54% by 1953. The high and low points in present day cash ratios finds the Midwest with 54% spot cash and Mid-Atlantic low with 44%.

We next asked the dealers to split this question up into types of installations. We found then that 68% of new home sales were spot cash, in replacement sales the figure was 44%; and in conversions from other fuels, 51% were all cash deals.

The figure on new homes is quite mysterious, and it indicates that on individual new homes the heating may be financed apart from the mortgage. It may also mean some dealers install the equipment, wait until the builder gets a buyer for their pay.

In this latter event we would think of this as a cash deal although deferred beyond reasonable limits of patience.

When the dealers get installment notes, approximately 78% of such paper is sold to a financial institutions and 22% is held by the dealer himself. This provides mighty nice interest return if you're in shape to do it. Among the dealers who sell their paper to a financial house, 17% say that they still have to guarantee the payments, the other 83% sell them without recourse.

On the question of how long a period of time a dealer can handle installments, we find one dealer in ten offering a maximum of 60 months or five years. Most of the others stay within a three year limit, although about one in twenty has a six months' limit, which for all practical purposes is the same as cash on a slow paying basis.

The question of down payments came up next, and we learn that 68% of the dealers sell a job without a down payment if credit conditions look good. The other third of the dealers require a down payment from everyone.

When the dealers put new jobs into old houses so that no original mortgage is involved we find that 54% of such installations are financed under Title I, FHA. This is a splendid facility, often available without down payments, and the industry probably is not using it to its practical limit.

Five-year Terms

We then asked the dealers if any company in their individual markets is offering five year payment terms on oilheating, and 47% report that there are. You would think that such five year terms would be closely tied to holding the oil business, but that is true only in 24% of such installations.

This probably would conflict with Title I regulations, but we have known of dealers who sell on five year terms with the contract being voidable if the buyer switches to another oil company within the five year period.

It looks like a pretty good deal in some ways, and especially so if the oil company is in position to hold the paper.

Then we asked them if they individually believed that they could get the paper financed if they were to offer five year terms. Only 45% of the dealers think that they could, and the other 55% do not believe so.

In some markets, of course, oilburners are being rented on a small scale. In the reporting group 15% say that some companies in their markets are renting burners now. Only a few dealers could report what rentals are being charged for conversion burners, but those that did reply showed a range from $1.50 to $5 a month. One Midwest dealer says that he rents burners with a $50 installation charge and then $5 a month. The renter can buy the burner at any time, and get credit for all such charges that have been made. This dealer will only rent to his own oil users, obviously.

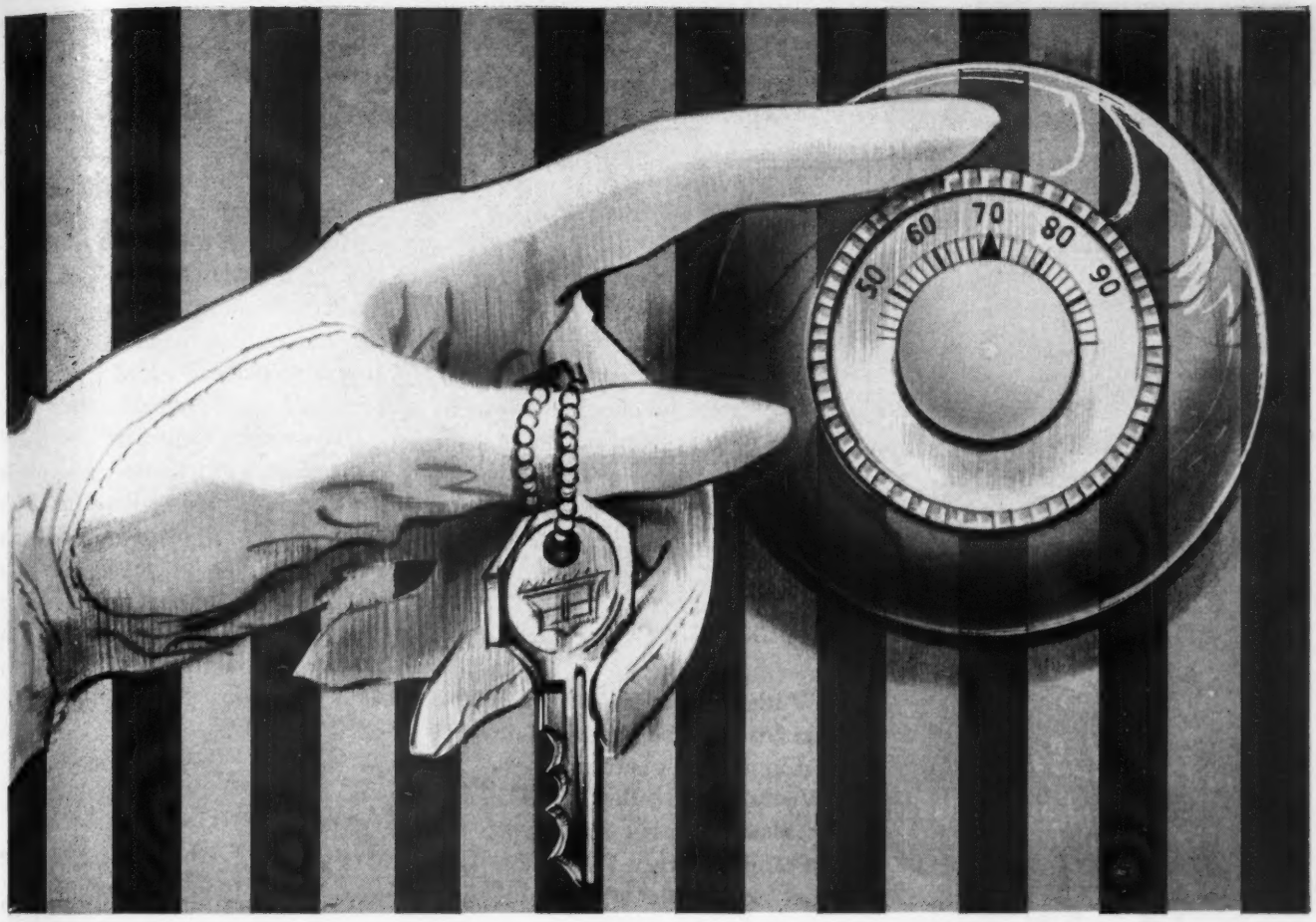
As the final question, we asked if the dealers believed that many more people would use oilheating if the industry were to feature rental deals on equipment or five year selling terms. The consensus was against it, for only 28% think that the easier deals would help much.

Oilheating Permits*

MAY 1957		5 MONTHS 1956	1957
2	Albany, N. Y.	17	12
18	Baltimore, Md.	158	83
69	Bridgeport, Conn.	364	337
2	Columbus, Ohio	9	13
27	Detroit, Mich.	673	182
42	Elizabeth, N. J.	271	146
62	Freeport, N. Y.	157	130
..	Hartford, Conn.	197	..
22	Irvington, N. J.	98	58
29	Meriden, Conn.	180	201
..	Milwaukee, Wis.	778	..
10	Minneapolis, Minn.	75	61
10	Montclair, N. J.	47	54
9	Morristown, N. J.	12	15
48	Mt. Vernon, N. Y.	85	163
89	Newark, N. J.	350	311
88	New Bedford, Mass.	517	309
12	New Haven, Conn.	85	87
16	New Rochelle, N. Y.	82	80
14	Norfolk, Va.	248	130
6	Omaha, Neb.	31	49
11	Orange, N. J.	39	30
12	Passaic, N. J.	30	32
..	Paterson, N. J.	135	..
133	Philadelphia, Pa.**	1058	711
45	Portland, Me.	200	186
145	Portland, Ore.	1314	684
6	Poughkeepsie, N. Y.	46	34
28	Providence, R. I.	260	..
23	Richmond, Va.	203	152
52	Roanoke, Va.	439	284
75	Rochester, N. Y.	346	242
8	Rockville Centre, N. Y.	47	26
16	Salem, Mass.	182	105
67	St. Louis, Mo.	782	400
1	St. Paul, Minn.	36	29
0	Schenectady, N. Y.	35	7
35	Spokane, Wash.	327	161
90	Springfield, Mass.	446	325
22	Stamford, Conn.	119	107
22	Washington, D. C.	199	136
12	White Plains, N. Y.	82	54
8	Wilmington, Del.	100	57
66	Worcester, Mass.	380	374
19	Yonkers, N. Y.	113	184
1471	Totals	9982	6741
	Percent Change		—32.5

*Permits are not total sales in each market since none are reported from suburban areas, which normally account for 20% to 60% of total sales in each market; nor are they an accurate index where enforcement is lax. Rightly used, however, they are a useful working index.

**Courtesy of "Philadelphia Inquirer."



CLEAN-burning...

a heating oil sales feature that can make you extra profits... save you money... increase customer satisfaction

In today's highly competitive fuel oil market, you can gain three distinct advantages by using Du Pont Fuel Oil Additive No. 2 (FOA-2):

1. Win new customers
2. Save money on expensive contract service calls
3. Increase customer satisfaction

Here's why

FOA-2 contributes to clean burning by minimizing deposits in fuel systems. So, by advertising and promoting oils that will stay clean, you will attract new customers who are tired of oil that causes stoppages.

Sludge-free furnace oil means no clogging of filters, strainers, nozzles and other burner parts. Burners stay in adjustment longer and fewer service calls are required.

Dispersant action

Du Pont FOA-2 is also a dispersant and solubilizer. Over a period of time, it reduces pre-formed deposits throughout entire systems.

Ashless

FOA-2 burns completely, without leaving any ash to interfere with the operation of ignition and stack controls. Because of this, it helps reduce chimney deposits and the possibility of puff-backs.

For best results, Du Pont FOA-2 should be added to freshly prepared stocks *at the refinery*. Small amounts are enough to protect most stocks from sludge... insure cleaner burning... reduce deposits in heating systems... prevent nozzle and filter fouling... and *keep* the systems clean.

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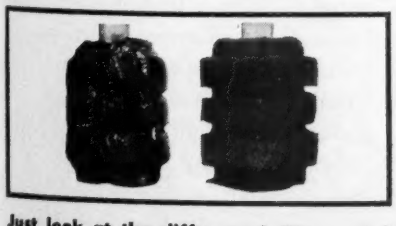

Just look at the difference! Filter on left was used for 90 days with untreated fuel. Filter on right was used for 90 days with same fuel to which FOA-2 had been added.

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Dealer Comments: Typical this month were . . . "We have no rentals, but one company rents the oil tank." . . . "We tried rental burners, but our experience was not good; the prospects were mostly those who rent their homes and were more or less financially insecure." . . .

"Many of our cash deals may actually be time sales for people often refinance their mortgages when making a major improvement such as a heating system; we offer five year terms on heating and cooling purchases above $900." . . . "A five year FHA plan is available, but not many use it, however, it does help with the $1,300 job." . . .

To meet Competition

"Although, I'm not in favor of long term financing, I'd go for it if it would help in meeting gas competition." . . . "We have been renting airconditioners for some time, but so does the gas company and others." . . . "Five year terms or rentals would give us a stronger hold in oil heat."

"The price of oil tanks should come down." . . . "We are new at this financing problem and would like to know the answers." . . . "The last thing we want is long credit on heating units; a substantial portion of our accounts (17%) can pay for last year's oil bill and we live in a supposedly high economy area with ample pay; the sad situation is that the so-called easy terms become a disease with the after effects being 'overbuying'—as an arm chair economist (conservative), I am alarmed." . . .

"The prospect of five year terms and rentals is laden with dynamite." . . . "Length of holding an oil account is strictly proportionate to service—a five year term payment will not help." . . . "We find strong objections to exceptionally long terms because of the interest burden; our average FHA deal will only run 18 months or 24 months on the customer's request."

"The success of our business can be traced in a large part to a tight credit policy, and we see no reason to change." . . . "A home owner who really wants something gets the money somehow." . . . "Anyone waiting for a five year plan shouldn't have oil-burner—he's a poor risk." . . .

"Credit is too liberal now." . . . "March, April and May have been dead months." . . . "We are told by wholesale representatives that heating dealers all over central Michigan are having a tough time, but for us May was the best May during our 20 years—airconditioning sales put us over the top, and business has increased to such an extent that we added another experienced man to our sales force." . . .

"We are buying used oilburners and controls from people converting to gas for $5 to $20; and installing them with warranty for maximum of $150 with tank." . . . "We have a five year plan of financing, but haven't started to use it yet." . . . "FHA has a five year plan now over certain amount; banks vary; GE is 6% on five year plan."

❖

April construction Awards drop 9% from 1956: Dodge

CONTRACTS for future construction in the United States in April totaled $2,776,431,000, a decline of 9% compared to year ago April according to F. W. Dodge Corp., New York.

However, the first four months of 1957 showed no change from the same period of 1956. A large increase in March offset the April loss.

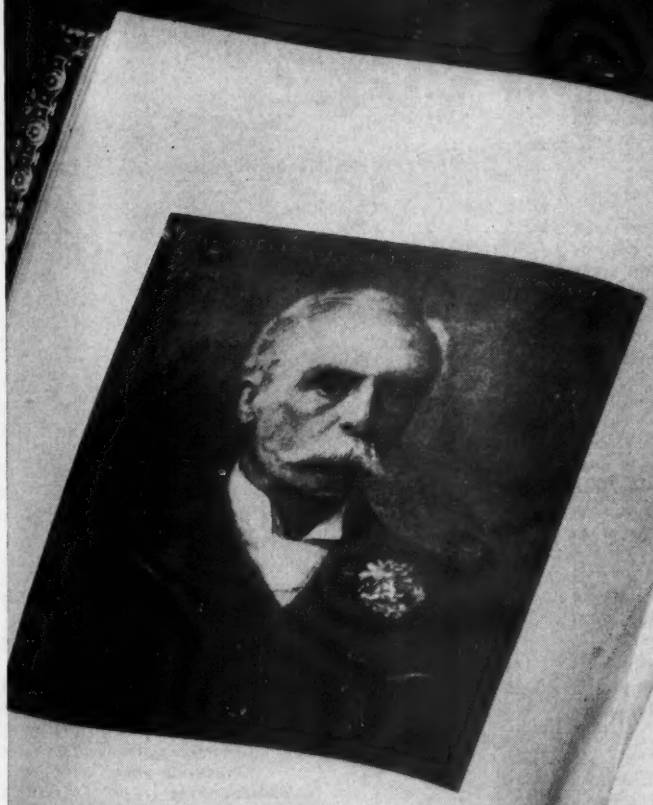
Non-residential building which had been quite strong during the first three months suffered the largest drop percentage-wise. Contracts in this category amounted to $838,065,000 down 20%.

Other April figures are: Residential building, $1,231,667,000 down 8%; Engineering contracts, $706,699,000, an increase of 8%.

The first four months of 1957 compared to 1956 is broken down as follows: Non-residential contracts, $3,664,712,000 about even; Residential building, $4,031,007,000 down 6%; Heavy engineering contracts, $2,619,272,000, up 12%.

A sidelight on the residential figure of interest to the heating industry is that while residential dollar volume was down only 8% for April the number of housing units is 14% below the year ago figure for the same month.

Famous Words of Independence



So long as men are free to think and act, life is worth living.
—Alfred Austin

Alfred Austin, 1835-1913
Poet Laureate of England

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COASTAL OIL COMPANY

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Where is the new home Market?

	No. of Permits Issued Mar. 1957	3 Mos. 1957
ALABAMA	969	2,870
Birmingham area	372	993
Mobile area	157	775
Montgomery area	60	185
Nonmetropolitan areas	380	917
ARIZONA	1,176	3,683
Phoenix area	715	2,553
Nonmetropolitan areas	461	1,130
ARKANSAS	131	554
CALIFORNIA	15,943	41,398
Fresno area	398	780
Los Angeles area	8,604	21,492
Sacramento area	278	901
San Bernardino area	2,005	4,826
San Diego area	1,152	3,373
San Francisco-Oakland	1,302	3,748
San Jose area	907	2,693
Stockton area	113	321
Nonmetropolitan areas	1,184	3,264
COLORADO	1,468	3,252
Denver area	582	1,751
Nonmetropolitan areas	886	1,501
CONNECTICUT	1,352	2,719
Bridgeport area	134	328
Hartford area	318	592
New Haven area	153	271
Nonmetropolitan areas	747	1,528
DELAWARE	162	359
Wilmington area	153	345
Nonmetropolitan areas	9	14
DISTRICT OF COLUMBIA		
Washington, D. C.	119	365
Maryland suburbs*	613	1,315
Virginia suburbs**	330	817
FLORIDA	4,374	13,515
Jacksonville area	322	915
Miami area	1,195	3,407
Orlando area	168	612
Tampa-St. Petersburg area	1,330	3,215
Nonmetropolitan areas	1,359	5,366
GEORGIA	1,551	3,910
Atlanta area	678	1,908
Columbus area	103	399
Savannah area	488	772
Nonmetropolitan areas	282	831
IDAHO	110	192
ILLINOIS	4,632	10,268
Chicago area (Does not include Ind. suburbs)	4,057	8,968
St. Louis area	73	113
Nonmetropolitan areas	502	1,188
INDIANA	1,197	2,577
Chicago suburbs	161	301
Fort Wayne area	28	173
Indianapolis area	436	888
South Bend area	118	246
Nonmetropolitan areas	454	969
IOWA	533	1,041
Davenport area	76	161
Des Moines area	100	208
Nonmetropolitan areas	357	672
KANSAS	1,276	2,156
Kansas City area	190	398
Wichita area	95	344
Topeka area	812	931
Nonmetropolitan areas	179	483

*Included in Maryland state total.
**Included in Virginia state total.

	No. of Permits Issued Mar. 1957	3 Mos. 1957
KENTUCKY	592	1,212
Cincinnati suburbs	41	89
Louisville area	328	739
Nonmetropolitan areas	223	384
LOUISIANA	808	2,623
Baton Rouge area	216	525
New Orleans area	286	1,390
Shreveport area	135	314
Nonmetropolitan areas	171	394
MAINE	81	121
MARYLAND	1,912	5,275
Baltimore area	1,035	3,365
Washington, D. C. suburbs	613	1,315
Nonmetropolitan areas	264	595
MASSACHUSETTS	1,852	3,325
Boston area	731	1,542
Springfield-Holyoke area	235	428
Worcester area	272	326
Nonmetropolitan areas	614	1,029
MICHIGAN	3,437	6,955
Detroit area	2,341	4,461
Flint area	138	370
Grand Rapids area	180	351
Nonmetropolitan areas	778	1,773
MINNESOTA	688	1,328
Minneapolis-St. Paul area	503	1,043
Nonmetropolitan areas	185	285
MISSISSIPPI	145	419
Jackson area	35	108
Nonmetropolitan areas	110	311
MISSOURI	1,285	2,723
Kansas City area	370	800
St. Louis area (Ill. suburbs listed under Ill.)	526	1,125
Nonmetropolitan areas	389	798
MONTANA	108	191
NEBRASKA	192	545
Lincoln area	71	144
Omaha area	42	255
Nonmetropolitan areas	79	146
NEVADA	138	377
NEW HAMPSHIRE	118	205
NEW JERSEY	1,879	5,643
Atlantic City area	30	100
New York City suburbs	933	3,127
Philadelphia suburbs	197	575
Nonmetropolitan areas	719	1,841
NEW MEXICO	477	1,339
NEW YORK	4,048	9,866
Albany, Schenectady, Troy	93	157
Buffalo area	639	1,162
New York City†	1,001	3,197
Suburbs of New York City	1,795	4,388
Rochester area	198	439
Nonmetropolitan areas	322	523
NORTH CAROLINA	678	1,984
Charlotte area	53	208
Greensboro-High Point area	110	318
Raleigh area	61	152
Nonmetropolitan areas	454	1,306

†Covers dwelling units actually started.

	No. of Permits Issued Mar. 1957	3 Mos. 1957
NORTH DAKOTA	69	78
OHIO	3,612	7,422
Akron area	298	498
Cincinnati area	737	1,123
Cleveland area	925	1,786
Columbus area	375	840
Dayton area	261	872
Toledo area	174	375
Youngstown area	322	601
Nonmetropolitan areas	520	1,327
OKLAHOMA	498	1,201
Oklahoma City area	167	442
Tulsa area	97	187
Nonmetropolitan areas	234	572
OREGON	409	1,133
Portland area	199	640
Nonmetropolitan areas	210	493
PENNSYLVANIA	2,617	5,673
Allentown-Bethlehem area	139	240
Harrisburg area	87	212
Philadelphia area (See New Jersey for Jersey suburbs)	1,005	2,397
Pittsburgh area	900	1,837
Nonmetropolitan areas	486	987
RHODE ISLAND	218	425
Providence area	190	380
Nonmetropolitan areas	28	45
SOUTH CAROLINA	245	869
Charleston area	114	382
Nonmetropolitan areas	131	487
SOUTH DAKOTA	48	91
TENNESSEE	804	2,001
Chattanooga area	110	248
Knoxville area	193	412
Memphis area	246	848
Nashville area	144	316
Nonmetropolitan areas	111	257
TEXAS	4,030	14,223
Beaumont-Port Arthur area	156	447
Corpus Christi area	83	263
Dallas area	696	2,072
El Paso area	317	787
Fort Worth area	418	1,161
Houston area	1,335	4,309
San Antonio area	319	980
Nonmetropolitan areas	706	4,204
UTAH	500	1,247
Salt Lake City area	222	626
Nonmetropolitan areas	278	621
VERMONT	20	34
VIRGINIA	1,417	3,829
Norfolk-Portsmouth area	183	549
Richmond area	185	586
Roanoke area	103	278
Washington, D. C. suburbs	330	817
Nonmetropolitan areas	616	1,599
WASHINGTON	1,117	2,642
Seattle area	545	1,527
Spokane area	163	254
Tacoma area	116	335
Nonmetropolitan areas	293	526
WEST VIRGINIA	279	627
Charleston area	92	172
Nonmetropolitan areas	187	455
WISCONSIN	1,654	3,172
Madison area	144	217
Milwaukee area	867	1,789
Nonmetropolitan areas	643	1,166
WYOMING	59	105

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by
Milburn Petty

WASHINGTON — Chances are much improved now that the House will pass legislation—this session—to free gas producers from utility-type regulation.

This results from the personal intervention of President Eisenhower, following presentation of amendments to the Harris Gas Bill which purported to be from the White House.

At his news conference, Ike said "I seriously object to any kind of public utility control over the well or the producer himself."

A few days later, the President sent a letter to Chairman Harris (D, Arkansas) of the House Commerce Committee saying that the amendments offered by ODM Counsel Kendall "do not represent my fixed conclusions."

Kendall's amendments would have permitted the Federal Power Commission to consider "costs" on regulating prices of gas producers and to open existing contracts—with definite escalation—to review by the FPC.

If adopted, these would have made the bill "totally unacceptable" to producers, the committee was told.

Now that Ike has, in effect, repudiated these proposed amendments it is expected that the Harris Bill will soon be reported out of the committee.

Ike May Act Soon on Imports

President Eisenhower has convinced two oil-state senators—Carlson (R, Kansas) and O'Mahoney (D, Wyoming)—that he plans to act soon to limit imports of crude oil.

Ike may make a personal appeal to importers to restrict the inflow of foreign crude before taking action under the 1955 trade law.

Senator Carlson said that he suggested several alternatives to the President—quotas, tariffs, voluntary programs or combinations of these—but there was no indication of what action would be taken.

Meanwhile, the National Oil Jobbers Council, meeting here, reiterated its opposition to "any and all" efforts to limit imports of either crude or products.

If crude imports were reduced, according to the NOJC, it would cause an increase in crude and product prices and "would vest complete control over supply and demand for crude in the hands of the state regulatory bodies."

NOJC Sets Up New Fueloil Group

Among other actions taken by the NOJC was setting up a fueloil committee, headed by William Kenny of Meenan Oil Co., New York. New committee's report recommended study of oil burner practices.

Opposition was voiced to any federal controls on gas production.

Protesting the sale of gasoline and fueloil by some suppliers to commercial consumers at lower prices than charged to jobbers, NOJC said this "has long since passed the time for solution with platitudes and excuses."

NOJC plans to invite each major supplier to send its marketing vice president to meet with a group from the jobbers council—at Chicago in November—"for the purpose of discussing improvement of our mutual public relations."

European Oil Lift Is Criticized

Staff reports, made to the Senate Oil Investigation Subcommittee—headed by Senator O'Mahoney (D, Wyoming)—in an "open" executive meeting, strove to outdo each other in heaping criticism on the major oil companies and challenging the legality of the industry group, Middle East Emergency Committee, set up by the government to deal with the Suez Crisis last winter.

While these were staff papers, they gained almost as much publicity as if they had been approved by the committee—and that was perhaps the purpose of issuing them in advance.

Most specific recommendation was that the Department of Justice should make an immediate investigation of possible antitrust law violations by the majors in ownership and control of pipelines.

Another staff comment was that the DJ, with its informal clearances, has put the National Petroleum Council beyond reach of antitrust prosecution.

Meanwhile, a bill—unanimously reported to the House by the government operations committee—would, if passed, impose a government chairman on NPC.

Coal Wants 27½% Depletion Rate

National Coal Association, meeting here, wants a 27½% depletion allowance "like oil and gas"; also, they urged the gas bill be amended to ban "dump sales" of industrial gas which they contended were "below cost." Sharp criticism was voiced of the Eisenhower Administration for not carrying out 1955 Cabinet Fuels Policy Committee recommendations.

Oil Divorcement Now is Opposed

Staff report of the Roosevelt Committee on that group's oil investigation said divorcement of oil suppliers from retailing was "complicated" and should not be enacted now, although continued study of this and other "remedies" for conditions complained of in the marketing branch was recommended.

Action on S-11 May Be Delayed

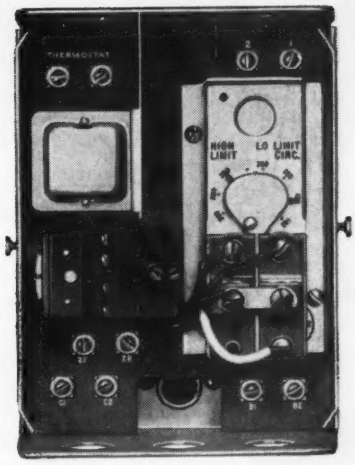
Because of the pendency of the "Detroit Case" in the Supreme Court, final action on S-11 in the Senate may be deferred until the next session of Congress.

Since this legislation by Senator Kefauver (D, Tennessee), which was opposed by independent distributors of fueloil and other products, would deal with the issue of "good faith" pricing—involved in this case—the court's action may be awaited.

Grand Jury Continues Oil Probe

Witnesses continue to appear before the federal grand jury at Alexandria, Va., which is conducting an oil investigation.

Indications are that the DJ attorneys in charge of the inquiry are interested in charges of "follow-the-leader" pricing of oil products.



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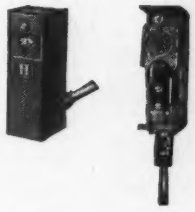
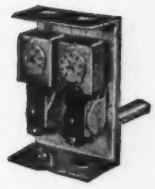


L4006 and L4007 . . . These are single immersion Aquastats for use as low limit, high limit or circulator control.



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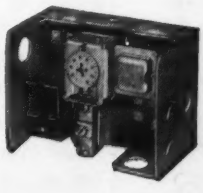
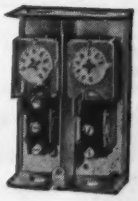
L4011 . . . This is a single immersion Aquastat which offers low limit and circulator control, for vertical mounting.

L4008 . . . For remote control. Available for low limit, high limit and circulator control.



L8048 . . . Combination high limit and circulator relay for use on systems without tankless coils.



L6010—L6011 . . . Triple Aquastats for combination high limit, low limit and circulator control.

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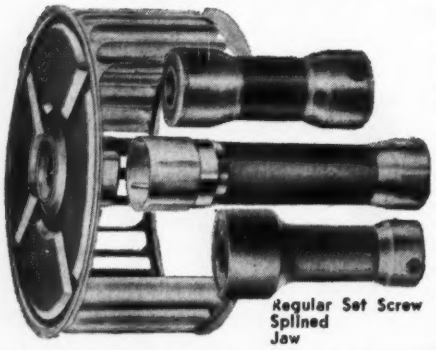

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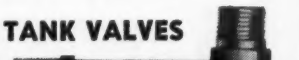
No. 1910 B



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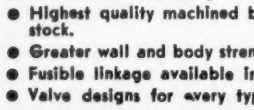

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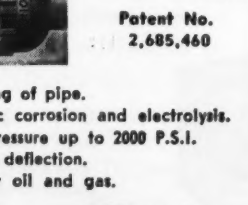


***Guardian* PRODUCTS CORP.**
COUPLING DIVISION

Dept. F-77 1215 East Second Street
MICHIGAN CITY, INDIANA

Names in the News

R. A. Hunter has been appointed coordinator for all marketing, both domestic and foreign, Gulf Oil Corp., Pittsburgh. He will be responsible for the coordination of all marketing activities wherever Gulf has operations. He joined the company in 1933 and with the exception of government service during periods of national emergency has been with Gulf ever since, most recently as general manager, retail and jobber sales.

Hunter

E. L. Hemming takes over this later position, and *H. E. Bower* will assume the duties of resale outlets development in Domestic Marketing.

V. J. Harder has recently acquired sole proprietorship of Dennis Petroleum Corp., Buffalo. He has been associated with the firm for 20 years and has been general manager of the organization.

Roy W. Gronauer has joined Ever-Tite Coupling Co. Inc., New York, N. Y., as Midwestern manager and sales engineer with headquarters in Cincinnati. Ever-Tite explains that Gronauer's engineering background and contacts in the petroleum and chemical industries will maintain and extend their activities in these fields. He formerly was with OPW Corp., as vice-president in charge of sales.

Robert G. Watkins has been made district manager, Michigan, by the Armstrong Furnace Company, Columbus, Ohio. He has a strong background in selling and sales promotion activities.

Russell W. Wetjen has been appointed sales manager for petroleum, LP-GAS and industrial meters, Neptune Meter Company, New York City. In his new position Wetjen will supervise national sales of all Red Seal petroleum meters and Neptune industrial meters. He succeeds *Walter H. Sieger,* who has been elected president of Revere Corporation of America, a Neptune subsidiary.

Robert C. Anderson has been named general manager, Granberg Corp., Oakland, Calif., manufacturer of Granco pumps and meters. In addition to his new appointment, Anderson was also re-elected vice-president of the firm. Other appointments include; *Randy Murphey* promoted to general sales manager to replace Anderson and *A. S. Kozman,* former owner and manager of Cook's Oil Co., who has joined Granberg's sales staff as local district manager to replace Murphey.

Walter R. Leander and *Ray F. DeVaney* have been promoted by Stewart-Warner Corp., Lebanon, Ind. Leander was named sales promotion manager and will co-ordinate all promotional activities of Stewart-Warner, Stewart-Warner-Winkler, and Stewart-Warner Saf-Aire products in his new position. DeVaney was made assistant sales manager of Stewandart - Warner, Stewart - Warner - Winkler, and Stewart-Warner Saf-Aire Heating and Air Conditioning Products.

Leander

DeVaney

WHY B&G ASME SAFETY RELIEF VALVES ARE DIAPHRAGM OPERATED!

B&G Safety Relief Valves feature diaphragm construction because *during an emergency*, a B&G diaphragm operated valve has *much greater opening power* than the "pop" type valve. That's because the effective operating area in B&G diaphragm type valves is *as much as nine times greater!*

This added power enables the valve to overcome the effects of fouling which can occur in any heating system. Foreign materials, such as pipe dope, soldering flux and boiler compounds will sometimes cause adhesion of the disc and seat of any relief valve, requiring additional force to open the valve.

Under *normal* operating conditions, the spring force in both types of valves balances the effective areas. During an *emergency*, the extra area of the diaphragm provides extra power which will open the valve within safe operating pressures.

If, for example, the cementing action of adhesive matter in the system water makes necessary an additional two pounds of force to open the valve, a No. 350 B&G Relief Valve *will open at 31.1 psi*, whereas a "pop" type valve will not open until boiler pressure reaches 40 psi.

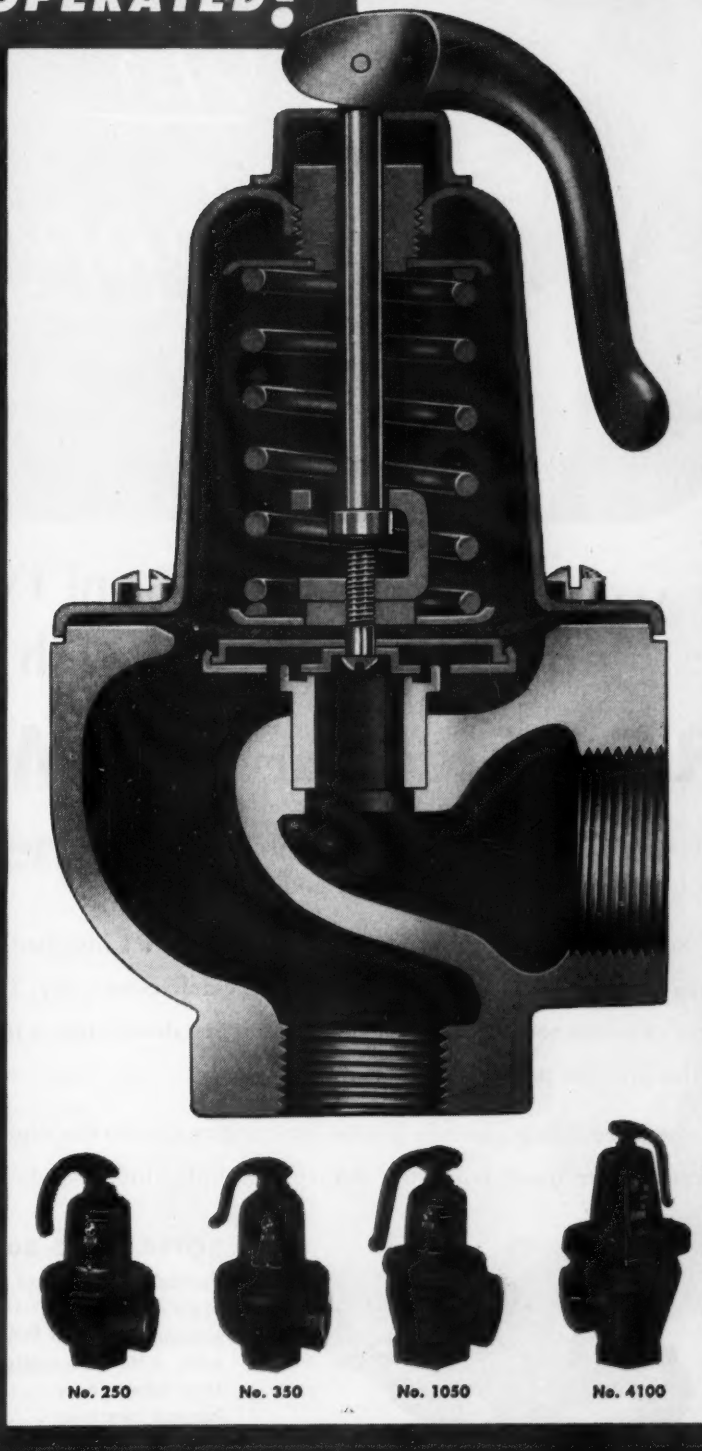
No guides to jam!

In non-diaphragm valves, the disc must be centered over the seat by sliding through close fitting guides. Adhesive materials in the system water may cause cementing between the disc and guide sufficient to prevent the valve from opening at safe operating pressures.

There are no guides to jam in a B&G Relief Valve! The disc is always centered in sealing position by the diaphragm.

Silicone Rubber seat

Silicone is extremely resistant to the effects of high temperatures—will not deteriorate or become deformed through age or use.



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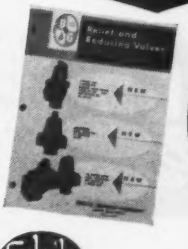

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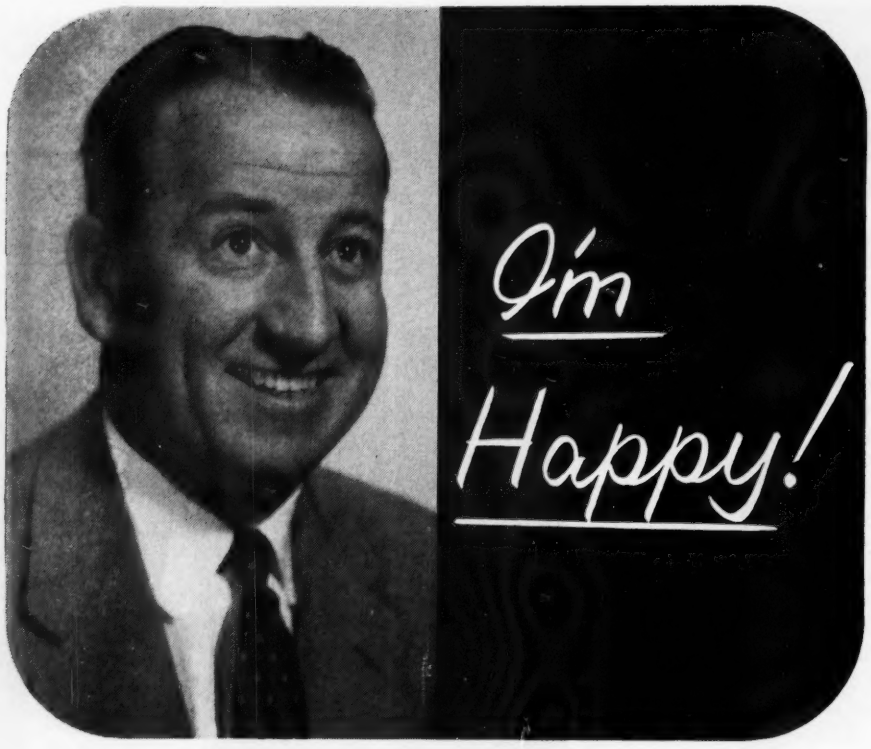

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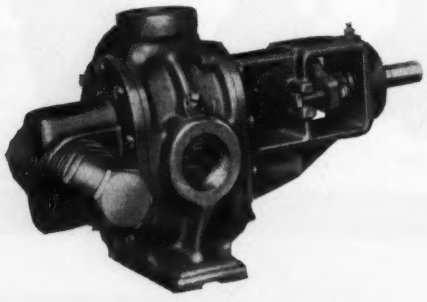

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Nate Spiegel is retiring from active business as a fueloil and oilheating dealer in Easton, Pa., after 31 years in the industry. One of the real pioneers in oil-heating he got his early training in 1925 from his brother Moe at Middletown, Orange County, N. Y. Shortly after he began his own business in Easton, meeting tough coal competition and successfully sold both domestic and industrial burners. He was a great advocate of adequate insulation and believed in the concept that an oil-heating dealer provides the complete package of equipment, fueloil and burner service. He's a 30-year member of the Oil Heat Old Timers and is retiring because of illness.

Robert C. Cottrell has been appointed general sales manager, Hoff Mfg. Co., Bethany, Conn., manufacturers of baseboard radiation, convectors and radiator enclosures. He will supervise a program of distribution expansion and develop new markets and products. Cottrell was for three years assistant general sales manager of the Spi-Rol-Fin Corp.

F. H. Falkiner and *C. B. Howey* have been elected to the board of directors, Gilbert & Barker Mfg. Co., Ltd., Toronto, Canada. Falkiner, with the company for 27 years, also has been appointed secretary, along with his duties as assistant treasurer. Howey has 11 years' service with the company as sales manager and was recently elected a director of the Oil Heating Association of Canada. Howey, as sales manager, will direct the marketing of Gilbarco products in Canada from coast to coast.

Frank M. Koch has been appointed western district manager, Premier Co., St. Paul, Minn., manufacturer of furnace vacuuming equipment. He joined Premier after 32 years with General Electric Supply Co., San Francisco, and will supervise sales activities in ten western states and El Paso, Tex.

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RIGHT! Suits you to a "T" — that's the good word for A. O. Smith's Model T-6 truck meter shown here. Tailored for top performance on trucks engaged in rural and domestic fuel oil delivery, this meter operates consistently regardless of temperature extremes. Never misses — even in coldest weather.

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Barrett describes oilheating Trends at Empire State Association Meeting

A GLANCE into the future of oilheating was provided by David L. Barrett, Esso Standard Oil Co., at the annual meeting of the Empire State Petroleum Association, New York, in Buffalo, May 26-28.

He acknowledged that the realization on distillates has been good compared to the realization on gasoline and stressed that consumption is continuing to grow. Barrett pointed out that the rate of growth is less than enjoyed in the past, but there is no decline in demand—rather a declining growth rate.

On the touchy price situation he recalled that most people can remember when heating oil sold at 5¢ and 6¢. Today the price is three times what it was, but it is a path to business suicide if rising costs are not reflected in the price to the consumer.

Gross margins at all levels of operation must be adequate—in producing, refining, transportation, and marketing, he emphasized. "And the selling price per gallon of product to the consumer must provide the margins."

Fueloil Prices

However, Barrett is aware that fueloil can price itself too high for the competitive market, but he feels that the annual heating bill for oil can be reduced appreciably. "Sales volume must be reduced per customer in order to sell more product."

Esso Research and Engineering affiliate is working to achieve this goal. Barrett said that savings up to 26% were effected in limited testing by reducing the firing rate and improving combustion on gun-type burners, and through the use of low pressure, low capacity burners. He admitted that as yet the test work is inconclusive, but it is being pursued vigorously. Offering this type of economy to present users will save the replacement market from competitive fuels.

Barrett feels that our relationship with present customers is not all that it should be. "Any complaint of any nature should get prompt attention; there should be more personal and telephone contact with customers. We must remove any and all limitations on the quality of burner and delivery service."

It is his belief that a modern industry must search for new uses for its products. The oilfired airconditioner is such a new use, and he predicts that the New Jersey-New York area potential is 371,000 barrels of oil in 1960 for airconditioning, and more than a million barrels per year by 1965.

Snow-melting Unit

Also developed through the experimental stage is a snow-melting unit using heating oil that would provide a market throughout the northern United States and Canada. Barrett hopes that a prototype of such a unit will be available for experimental operations this coming winter.

Farther ahead, but another possible fueloil consumption unit, is a device described by Barrett as taking the energy in oil and converting it directly to electricity without burning the oil to produce heat.

In his concluding remarks, he said that his own optimism in the future of the oil market was boundless, but it does demand the very best efforts from each of us, individually and collectively. "The best predictions show a sound basis for future growth, but we must cultivate and nurture that growth to produce a healthy and flourishing market for years to come."

Also on the program with Barrett was L. T. White, Cities Service Petroleum, Inc. His topic was "What's new in jobber Management?"

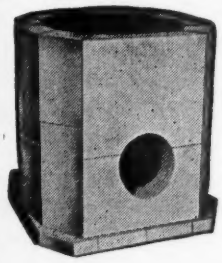
Answering the question, White declared that "everything is new." Today people are competing with knowledge. For instance, the new market in airconditioning has been exploited by the electrical industry because it has taken hold of new ideas.

Oilheating dealers now are in the position of getting a share of this market. If management doesn't move quickly this new business goes by the board and someone else gets it, he pointed out.

INCREASE YOUR SHARE of the MARKET...

Make Money on Every Job with A. P. GREEN COMBUSTION CHAMBERS

QUICK-EASY TO INSTALL



STANDARD IFB Combustion Chamber

STANDARD IFB Combustion Chamber . . . Requires minimum installation time. Front tile is in two pieces with burner opening already cut. Packed in special container that guards against breakage in shipment. Everything you need is in the carton, including a 5-lb. can of 'SAIRSET high temperature mortar.

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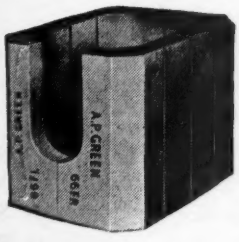

STREAMLINED Combustion Chamber

STREAMLINED Combustion Chamber . . . Conforms to the natural shape of the flame and eliminates "dead corners." Provides more quiet operation. The ease of installation makes the installed cost of a STREAMLINED Chamber no more than that of an ordinary type of chamber.

HIGH TEMPERATURE Insulations

HIGH TEMPERATURE Insulations

These A. P. GREEN High Temperature insulations help insure the efficiency of the oil burner installation.

COST NO MORE THAN ORDINARY CHAMBERS

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PERFECTO Combustion Chamber . . . A practical, economical solution to many oil conversion problems. Installation is simple. For both round and elongated chambers, four basic tile shapes are used to form chamber sizes to fit nearly every type of domestic furnace or boiler.

SIZES TO MEET EVERY OIL BURNER REQUIREMENT

OIL BURNER Baffle Brick

OIL BURNER Baffle Brick... The baffle is installed in such a manner that it rests on the combustion chamber and directs furnace gases to all heating surfaces. Results in more economical and efficient performance by reducing the waste heat up the stack.

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Armored Bushed Cable —available in standard wire sizes both solid and stranded in single, two, three and four conductors. Armored lead cable furnished in standard wire sizes.

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Chester Plasticote and Plasticord coatings withstand severe environmental conditions.. add years to wiring life. The smooth pliability of these durable Chester conductors makes them easier working, faster to install. For faster installations and improved wiring performance, connect it with Chester! All wire and cable constructions *exceed* service requirements. Call or write for wire samples and bulletins today.

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A Subsidiary of Miami Copper Company

He illustrated his point with the story about a North Carolina dealer who attended a management institute for one reason—"I didn't dare stay home. My two competitors are here."

He told his audience that profit is no accident. If the dealer is losing money, it is his fault. If he is making money, it is because of his management. Under this heading of management come the talents of being able to plan and organize. He must be able to delegate authority, and he must be able to analyze the job to get it most effectively done.

Management: An Art

White feels that management is an art and demands respect. When a dealer realizes that bigness is no index to good management practices he loses his fear of the majors.

"Big companies can be badly managed and the final judges of merit are the bankers, the customers, the employees, the suppliers and the public."

Another speaker, Vernon A. Bellman, Socony Mobil Oil Co., Inc., told the group that the small operator has a decided advantage over his larger competitor—he can try out new ideas and determine their effectiveness while his competitor is still "studying the situation."

Also on the program during the three day meeting was Adam J. Rumoshosky, API; Louis P. Shannon, E. I. Du Pont; and Otis H. Ellis, National Oil Jobbers' Council, who announced the formation of a fueloil committee within the council under the chairmanship of William S. Kenny, Meenan Oil Co..

Richmond S. Meyer, Mid-Hudson Oil Co., was elected president of ESPA for the coming year. Named vice-presidents were George L. Savory, Savory Oil Co., Inc.; Harry J. Cool, George Hall Corp.; H. Halstead Park, Jr., H. H. Park, Inc., and Kenneth E. Campbell, Campbell Oil Co. E. C. Drake, Drake & Mills Oil Co., Inc., was re-elected treasurer.

Harry B. Hilts is secretary of the association and assistant secretary is Charles A. Lockard.

It was announced at the meeting that ESPA will sponsor a management institute on the campus of Cornell University, Ithaca, N. Y., July 23-25.

Lead the '57 Heat Parade with AMERICAN-Standard

INCREASED SALES—MORE PROFITS

Arcoleader Packaged Oil Unit

From crate to connection in 12 mins.

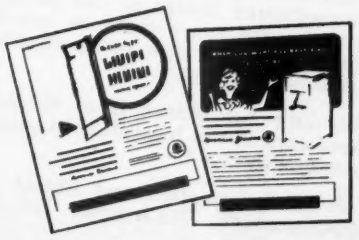
- New factory-installed I=W=H rated water heater
- New vertical design cast iron sections have wet base feature
- New PH burner needs only one adjustment
- New stainless steel combustion chamber
- I=B=R net ratings 500 to 865 sq. ft. water
- 6" top nipple for peak internal circulation
- 1½" supply and returns cut installation cost
- Easily removed access panel for quick, complete cleaning
- Heavy-duty steel jacket floats—easy "walking"
- All controls conveniently mounted on front
- Accessories and controls factory-assembled and pre-wired

The biggest and best ever—

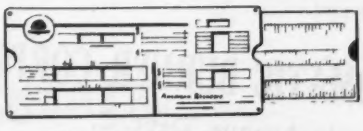
1957 AMERICAN-Standard BOILER-MAKER CAMPAIGN

...and for only $5.00

Big "live-action" display



Powerful hard-sell newspaper ads



Time-saving heat-loss calculator

PLUS **$5.00 worth of literature YOU CHOOSE FROM...**

- Hard-hitting direct mail pieces
- Colorful envelope stuffers
- Eye-catching point-of-sale literature

WRITE NOW for complete information on these sure-fire sales builders. AMERICAN-STANDARD, PLUMBING & HEATING DIVISION, 40 W. 40th St., New York 18, N. Y.

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PLUMBING AND HEATING DIVISION

True in '22....and Still the 'S

Get in on the "Cream"

Oil burners for hou
popular each day.
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Get your share of

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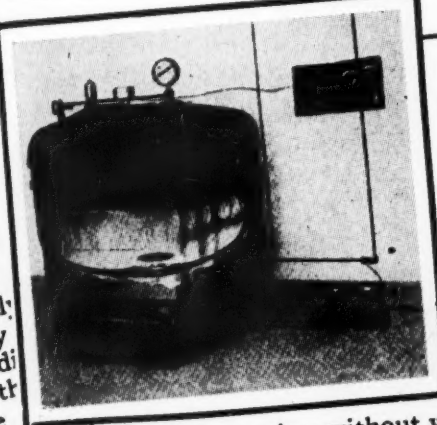

More Dollars For You!

Sales representatives of the ABC Oil Burner are making great profits. Here is your golden opportunity to do likewise.

ABC Oil Burners are filling a long-felt want —home heating without waste, dirt or bother. Their utter simplicity and correctness or principle are instantly recognized.

Unlimited Possibilities

Every home owner is a friendly, half-sold prospect for the ABC. So obvious and amazing are its superiorities that it practically sells itself.

ABC is far beyond the experimental stage. It is presented today as the unquestioned leader in the oil burner field. Actual try-outs under the most rigorous conditions have proved its ability—its amazing power—its continuous, trouble-free and noiseless operation.

Inquiries are flooding our offices from all parts of the country. We need men in the local field to properly represent us. Can you qualify?

Write today for full information and liberal offer. Tell us something about yourself. Do it now! Delay means actual loss to you.

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flame is such that
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Tell us somethi
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Now's the time to act! Each day's delay cuts into your p
its. Write today.

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"Standard of the Industry"

ABC Oil Burners

Congratulations, FUELOIL & OIL HEAT! We're proud to have been one of your Charter Advertisers, back in 1922. Down through the years, we've progressed with the Industry, together. And in the next 35 years, we're confident that the Automatic Burner Corporation, and FUELOIL & OIL HEAT, will continue to lead the Industry in its expanding progress.

ABC Oil Burners **are now standard equipment in the oil burning units of the Industry's leading heating manufacturers**

Sell "The Standard of the Industry"

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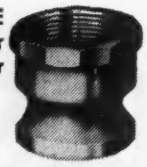
fueloil & oilheat

EVER-TITE
Standard Adapter
and Coupler



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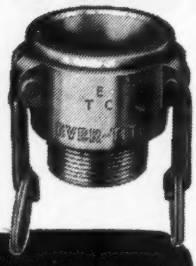
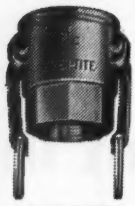


EVER-TITE
-the best quality
QUICK COUPLINGS



EVER-TITE
Adapter and
Coupler

You save *time* and *money* when you use Ever-Tite Couplings because they speed-up deliveries, prevent leakage, and save wear on equipment.

Tightness is predetermined in manufacture by positive gasket compression. There are no sliding rings—no springs, ball bearings, snaps or lugs to fit. You just slip the coupler over the adapter, and close the handles.

If you want to get the *most* in coupling value get *Ever-Tite.* The Ever-Tite Trademark is a hallmark of dependability in fittings for the petroleum industry—proved by 18 years of pre-eminence. Ask your distributor now.

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254 West 54th Street
New York 19, N. Y.

Dust Plug

Dust Cap

EVER-TITE Dust Protectors

Every EVER-TITE saves time and money

'Look Me over and tell What is wrong with Me'

by
V. M. Douglas

"MORE FUN THAN a three ring circus," was the advance billing of the 14th Annual Pacific Coast OHI Convention. This meeting, held in Portland, Oregon in April, was mentioned in the June issue of this magazine, but circumstances did not permit a detailed report of what transpired.

It is not uncommon for a company, movie producer, or even the little red hen to say, "look—look—look what I did." It is slightly unusual for a large industry to say, "Look me over and tell what is wrong with me."

That is what happened at Portland. Associates, affiliates, bystanders and competitors were requested to speak their mind about anything and everything in the oilheating industry in the Northwest.

Friday morning Fred Macdonald, president of the Oil Heat Institute of Oregon, extended an official welcome to visiting members of the participating groups, including the OHI's of Washington, Inland Empire, Idaho and Nevada, as well as an enthusiastic gathering of neighbors and co-workers from British Columbia.

Panel Discussion

"As Others see Us," was the subject of a panel discussion, with Al Loucks, vice-president of the OHI of Oregon as moderator. Each speaker, representing a segment of professional, business, or private life directly associated with, or having an influence upon oil heat, was asked to express opinions. It should be remembered that the following reports of panel discussions represent the opinions of panel members—whether or not direct quotes are used.

Rather than defer names and occupations or professions until reaching the position of their order of discussion, it might be well to provide advance information as to their identity, and why their opinions were valued.

Architect — Robert W. Fritsch, president, Oregon Chapter, American Institute of Architects;

Engineer — John H. Bonebrake, heating and ventilating engineer, Portland;

Builder—Leo C. Rush, president, Portland Home Builders Association;

Financier — George McFarland, vice-president, Pacific First Federal Savings & Loan Association of Portland;

Property Counselor — Ralph W. Walstrom, partner, Holbrook & Walstrom Company, Property Counselors, Portland;

Housewife—Mrs. Rita Woodbury, Secretary, Oregon Advertising Club.

Fritsch deplored the fact that clients who go to architects sometimes have convictions about "heating plants that are stereotyped or old wives' tales. They haven't been brought up to date on the latest developments."

Discrimination

Another condition, which is not new in the industry, was brought to light when Fritsch stated, "Many of our building codes discriminate against oil as a fuel. What are we doing about it? What are you doing about it? I'll cite a couple of examples. In commercial structures particularly, if we burn oil as fuel in our boiler plant, we have to have a 3-hour wall around that boiler plant. We have to have class B doors. We have to have two means of egress, two ways of getting out of that boiler room. We have to have a chimney that is pretty high. If we burn gas we only have to have a 1-hour wall. We do not need the second means of egress. We do not need as high a chimney. As a matter of fact we don't have to put up a masonry chimney at all if we don't want to.

"I am not comparing those things in relation to their relative merits. I'm comparing them to give you one challenge that you ought to be working on. You ought to be examining these codes and saying, 'Why is this particular thing being discriminated against?'

"The second challenge where I think oil heat might get some of its

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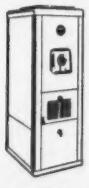
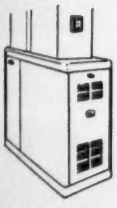
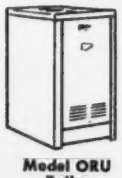
Rotary Wall Flame Oil Burners

Power These Fuel-Thrifty Units


Model ORA Hi-Boy


Model ORA Winter Air-Conditioner


Model ORU Boiler

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You make useful friends out of customers when you sell time-tested TORIDHEET Rotary Wall-Flame equipment. The operation is so reliable and quiet, the fuel economy so great, that customers tell friends and neighbors—actually become part-time salesmen for you.

Proved fuel savings up to 40% and trouble-free operation (only 1 moving part) make TORIDHEET a profitable line for you to sell—a profitable line for your customers to buy. If you're not selling TORIDHEET you're missing a bet!

COMPLETE UNITS AND CONVERSION BURNERS—OIL OR GAS

Wall-Flame Oil Burners • Gun Burners • Wall Flame Boilers • Furnaces and Water Heaters
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16035 Brookpark Road • Cleveland 11, Ohio
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This is the new gauge designed to meet your wants, according to our recent survey.

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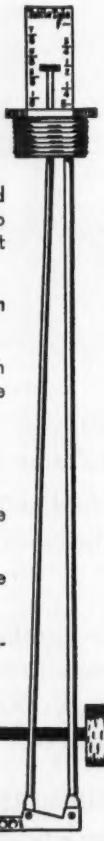
Oil Tank Gauge

for 1½" and 2" openings

The new trouble-free low priced gauge with exclusive features not found in many of the highest priced gauges.

7 Ways BETTER



1. An easy-to-read molded plastic top that laughs at the hot rays of the sun.
2. Excellent visibility in dark places.
3. Designed for both inside and outside installations.
4. Heavy die-cast plug.
5. Spring steel flexible float rod.
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If you are one who has not stocked this fast-selling gauge, write for free sample.

WRITE FOR OUR LOW PRICES

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problems, and one that you are undoubtedly familiar with, is the circulating heater. In this item where we have a building code, it is pretty well protected, but there are a lot of areas where it is not protected, and oddly enough, an oil circulating heater inevitably shows up in the worst kind of a building, where you have the worst hazards. Why should we be introducing uncontrolled hazard into an already hazardous situation?"

Bonebrake, the engineer panel member, was requested to do a little forecasting along the lines of "expected developments" in warm water heating, warm air heating, electric heating, reverse cycle, airconditioning and suggested improvements in oil-heating.

Leo C. Rush, the voice of the home building industry in Portland, stated "Our predominant heat here has always been oil." He added: "Recently we have had requests for gas heat, and these requests are coming from people who are moving into this area."

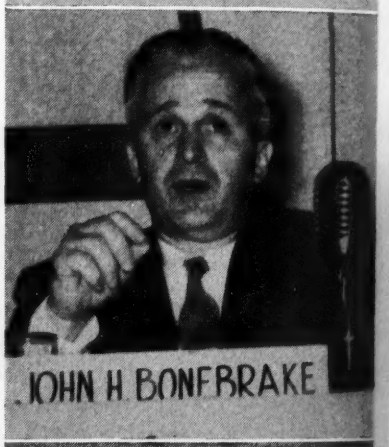
Tight Money

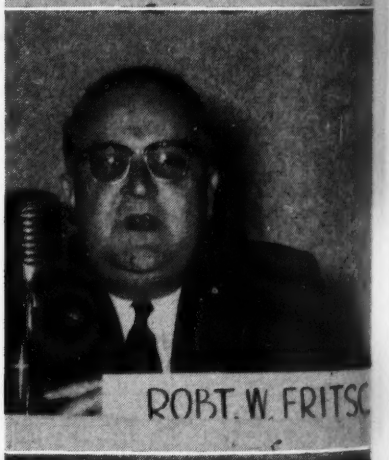
Rush stressed the effect of tight money on new building. The lack of new building has serious repercussions immediately on all industries supplying and utilizing building material. The economy of the Northwest is jeopardized because of the extensive lumbering industry, and those at the convention should have concern because both equipment and fuel suppliers need new housing for further expansion of their business.

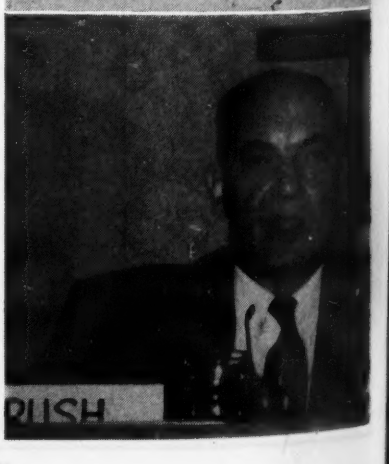
George McFarland discussed the importance of the heating plant to valuation. He claimed that many factors other than actual cost or use value enters into loan appraisal on homes.

To be specific, he said, "We in Portland, still, in spite of all the improvements in gas, do have to penalize a property rather severely because the people are still afraid of gas. I think it is purely a local situation."

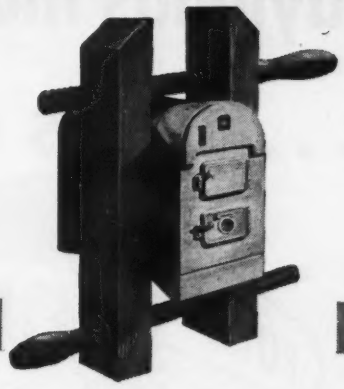
Ralph W. Walstrom, speaking as a property counselor, opened his remarks with the statement that he was completely prejudiced, "because I have enjoyed 15 years of absolutely trouble-free operation of my oilheating unit." He continued with more re-







Here's the way to beat the squeeze on boiler sales...



install the unique SPENCER "LW"

No other boiler offers these important product advantages to builders:

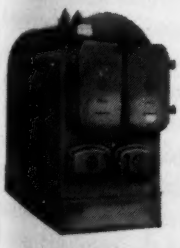
Lower waterline— over-all height of the Spencer "LW" is approximately 25% less than conventional firebox boilers . . . eliminates pit usually required in new buildings for conventional commercial boilers . . . saves builder high costs of excavation . . . returns high profits.

Built in two sections— in existing buildings, divided design allows entry through narrow basement openings. In modernization market, builder is saved cost of tearing out walls . . . two water-tight sections are moved in separately . . . no welding for installation.

The Spencer "LW" Divided, Low-Waterline Boiler has been proven in the field—acclaimed by contractors and builders as the ideal solution to problems of low headroom, excavation and limited entry space for both existing and new construction. The "LW" is available in a complete range of sizes from 2,200 to 42,500 sq. ft. steam SBI ratings.

THE SPENCER LINE CAN BUILD UP YOUR BOILER BUSINESS

SPENCER "A"



Complete range of sizes from 3,500 to 50,000 square feet steam SBI ratings. For *every* building . . . for *every* fuel.

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NEW SPENCER "C"

Heavy-duty commercial boiler performance at a residential boiler price! Can be fired with oil, gas or coal.

For complete details on the boilers shown, or any of the residential or commercial boilers in Spencer's complete line, write to Spencer Sales, Avco Mfg. Corp., Williamsport, Pa.

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Keep payloads moving faster . . . at less cost!

speed liquid handling with the

INGERSOLL-RAND

MOTORPUMP

Pumping costs go down—oil keeps on the move—payloads reach your customers with dependable regularity—when you put Ingersoll-Rand Motorpumps to work.

They're rugged and extra powerful for their compact size and stay on the job far longer without maintenance attention! Installation is easier because no special foundation or alignment is needed—they mount and operate in almost *any* position with equal efficiency.

Sizes from ¼ to 75 hp . . . 5 to 2800 gpm capacities. Straight centrifugal motorpumps as well as self-priming types handle practically all oil moving needs, faster and more profitably. Get the latest Motorpump catalog describing the full line or see your nearest Ingersoll-Rand Oil Equipment Jobber.

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marks which were enjoyed by his audience, by recalling post depression days in 1934-1935 when mortgage companies owned much of the real estate in Portland. These companies "were tearing out the old gas furnaces and replacing them with sawdust. I never saw them tear out an oilheating plant."

His memory also brought to light some less pleasant experiences. At the end of World War II during the "terrific housing boom," many "minimum gas heating units were installed in many of the project homes." The inadequate heating facilities and excessive heating costs were the subject of Saturday night sub-division discussions.

Walstrom expressed it as his opinion that most residential home buyers "buy with their hearts and not with their heads . . . they do not know what is under the walls. They rely on the integrity of the builder. We, as real estate appraisers, must appraise real estate on the basis of what people think, because what people think actually makes the value of the property."

Speculative Market

Speaking of the speculative market, he continued, "You still have and enjoy an advantage in the public mind because almost anyone, at least in my opinion, if everything is right, will purchase a home that has an oilburning system in it, but there are certain people who will not purchase a home if it has a gas heating system."

He felt that the gas company has an advantage in having a central agency with better control of their public relations, but that the greater number in the oil industry have an advantage in the number of people who can do a selling job as individuals.

Mrs. Rita Woodbury, speaking as a housewife, went considerably beyond her personal opinion in discussing the subjects assigned to her. She made a survey of housewives. Of 26 who were questioned, 23 liked oil heat and 3 expressed less than complete satisfaction. Repair problems, service, fuel costs were discussed and the resulting general conclusion of the survey was, "So all in all, I think you have done

Bennett's 25 Macks lead a busy life. During the season, Mack tractor trailers supply Bennett's local depots from the company's main storage tank at night; join Mack chassis-mounted tank trucks for daytime deliveries. Despite these strenuous schedules, no Bennett Mack has ever had a breakdown due to mechanical failure.

Lawrence J. Bennett, Inc., says:

"here's how we added customers . . . boosted earnings."

Dependable service is the key to the remarkable success of Lawrence J. Bennett, Inc., of Garden City, N. Y. Today, this fast-growing fuel oil distributor has over 5,000 regular customers in four Long Island counties.

"Giving the best delivery service means delivering with the best trucks," says President Charles E. Bennett. "That's why 95% of our fuel oil travels in Macks.

"We've got to have trucks that stand up. With Macks we've never had a breakdown due to mechanical failure. We can't afford trucks that give drivers a tussle . . . and our men say Macks have the best handling characteristics of any make. With up to 50,000 city miles per unit each year, we've got to have the finest transmissions made, and for our money that spells Mack. We've got to have reliable parts availability, and our Mack dealer gives the best.

"In every way, Macks are the best truck buy for our operation."

Check Lawrence J. Bennett, Inc. Check *any* Mack owner. You'll find that Macks, the finest trucks made, mean greater dependability, longer life, unmatched upkeep and fuel economies . . . *more work per dollar*. Mack Trucks, Inc., Plainfield, New Jersey. In Canada: Mack Trucks of Canada, Ltd.

MACK
first name for
TRUCKS

4909

fairly good job, and certainly the service department of every oil company has helped your public relations tremendously."

It was evident that Mrs. Woodbury had given more than casual thought to her subject—What does the housewife expect from oil heat?—for she gave the industry to understand that she approved or disapproved of several practices. She liked the idea of a large tank and the budget system; the use of degree-days and the automatic fill system. She considered the safety factor to be in favor of oil. Reminders of preventive service checks in the Spring and Fall could be left by oil delivery men. Be sure your service men are qualified.

Again, showing the depth of her investigation, Mrs. Woodbury reminded those present, "I know that all of you have a skelton in your own closet . . . circulating heaters are still in use in many a sub-standard house . . . some can still be found in second-hand shops. How can you get rid of them? Perhaps by selling on a cost basis, something to replace them."

The matter of taking steps to insure clean air filters was considered of importance to the housewife. The effect of gas heat on raising plants should not be overlooked, for many homes have a "green thumb" member who would appreciate knowing the advantage of oil.

In conclusion, Mrs. Woodbury, who has had personal experience with both oil and gas heat, said, "You have the lady of the house convinced that yours is a steady warmth. Gas is quick, but it doesn't hold the heat. . . . . If you will always remember that the rapid rise of the oilburner was initiated by its convenience when you added the thermostat back in the '20's, and keep adding to that comfort, safety and service—gentlemen, to use the vernacular—'You've got it made.'"

❖

Better Living with oil Heat, Theme of API Workshop

THEME of the Fueloil Workshop at the midyear meeting of the Division of Marketing, American Petroleum Institute, May 21 at Atlantic City, was "Better Living with oil Heat." The Workshop was one of seven held during the three-day meet.

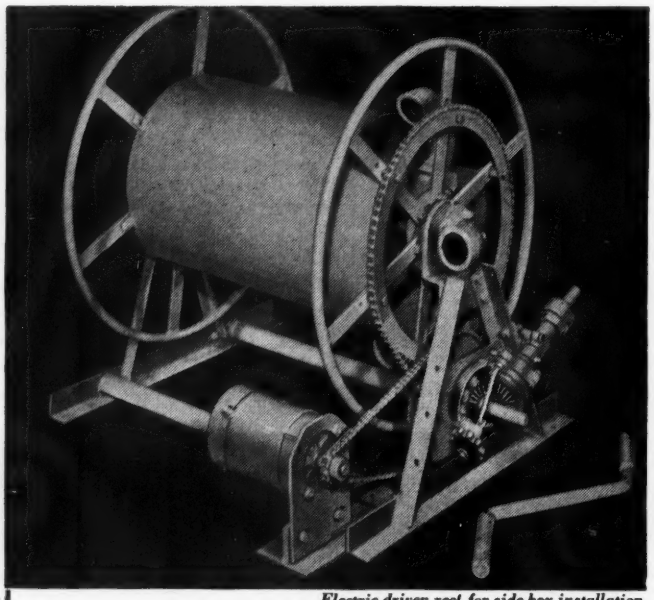
Two speakers appeared on the Fueloil program: Fred C. Haab, president, F. C. Haab Co., Philadelphia, with the subject, "Equipment Selling is the Key"; Robert L. Weeks, Esso Research & Engineering Co., Linden, N. J., "Year-'round Airconditioning with oil Fuel."

Haab's paper developed the importance of oilheating equipment sales as a means of insuring a continuing growth rate for the fueloil dealer. A condensation of his remarks will appear in the August issue.

Week's talk described the Sun Valley oilfired heating and cooling unit developed as a joint research project by Servel, Inc., Esso Research and Gilbert & Barker Mfg. Co. The key to the combination is Gilbert & Barker's newly-developed low pressure oilburner, which can be switched from low fire for summer cooling to high fire for winter heating. Details of the unit appeared in our May issue, under the title, "The oil Flame that cools."

Unrestricted Flow

PHILADELPHIA HOSE REEL proves leakproof after 1½ million revolutions



Electric driven reel for side box installation

Self-tightening seal enables it to stand up under toughest, heaviest work loads

The finest hose reel ever built for fuel oil, gasoline, compressed gases and chemicals. Will never wear out. Exhaustively tested.

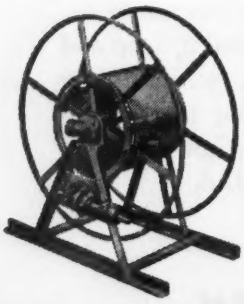
No leaking, no sweating after a million revolutions at pressure from zero to 100 lb. per sq. in.

A new, self-tightening seal in swing joint is the secret. This seal is easily, quickly replaced without breaking lines.

Features include light weight (85 lb.); holds 100 ft. of 1¼" hose; swing joint with clear, uninterrupted passages; every part steel, malleable iron or bronze—no cast iron; rigid base, welded throughout; six ball bearings on every reel; all working parts accessible; reel can be quickly unbolted.

This hose reel is made in all sizes from 1" to 3", for bucket or underslung box installation. Available with standard or explosion-proof electric motors, any voltage; air or hydraulic drives. We can equip them with automatic stop, level winder, friction, jaw, or electric clutches if desired.

Delivery usually within one week. Write for prices and details.



Hand-wound reel for rear box installation

PHILADELPHIA VALVE COMPANY

3413 ARAMINGO AVENUE • PHILADELPHIA 34, PA.

Pacific Coast Distributors:

Oil Marketing Equipment Co., 325 Fremont Street, San Francisco 5, Calif.
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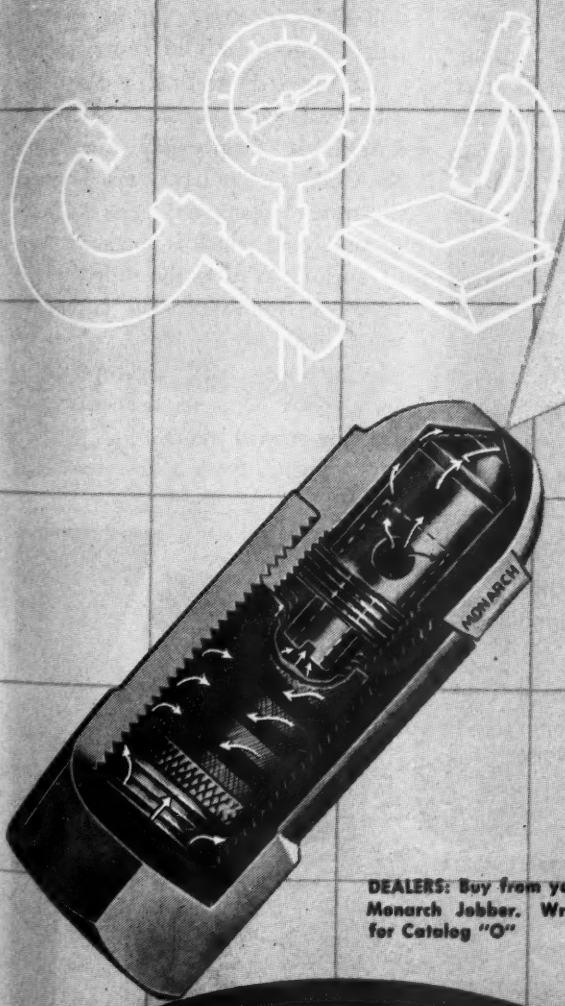
Every *Monarch* Nozzle is INDIVIDUALLY OIL TESTED . . .



this means . . . .

Monarch completely eliminates the need to "try out" several nozzles to find one that fires properly. *Individual* testing of *each* Monarch Nozzle, on Oil, is your guarantee of absolutely uniform performance.

Every Monarch Nozzle is a precision product, 100% Tested for Capacity, Spray Angle, Quality of Spray and Balance.

No wonder Service Men and more than 400 Oil Burner and Furnace manufacturers using Monarch Nozzles as original equipment agree . . . Monarch continues "First Choice of the Industry"!

DEALERS: Buy from your Monarch Jobber. Write for Catalog "O"

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***Monarch* AIR MIXING EQUIPMENT...**

COMBUSTION HEADS: G-81-C Head is as easy to install as an ordinary Air Cone and Stabilizer. Produces high CO_2 with no "adjustments" to get out of order. For 3⅞" or 4" I. D. Air Tubes.

CONVENTIONAL: Bladed Cone Rings and four blade Stabilizers for ordinary Air Tube replacement from 3½" to 8" I. D. Also special "Anti-Pulsation" equipment.

Also available: Flame Mirrors, 24 and 48 Nozzle Boxes, Nozzle Wrenches, etc.

REMEMBER: It costs more to clean a nozzle than to replace with a new, precision, guaranteed-uniform Monarch Nozzle.

Oil Heat Good Timers organized in Boston by 42 charter Members

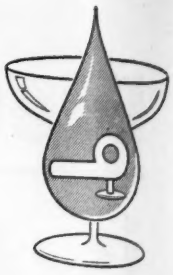
OIL HEAT GOOD TIMERS, a new oilheating industry fun club, was organized at the Boston Oil Heat Show, with 42 Charter Members. The announced purpose of the club is to promote friendship and cooperation, particularly among the newer and younger members of the oilheating industry.

At the June 4 organizational meeting, Frank P. Scully, Jr., of the Scully Signal Co., Melrose, Mass., was elected President. Other officers elected were: Bernard M. Markwell, Gulf Oil Co., Pittsburgh, Vice President; Lee Steedle, FUELOIL & OIL HEAT, New York City, Secretary; Ted Low, Sims Corp., Providence, R. I., Treasurer; and Arthur Bierman of the Petrometer Corp., Long Island City, N. Y., was elected Sergeant at Arms.

All five officers were elected as the Good Timers' first Directors. Arthur Bierman will be chairman of the arrangements committee for the next big meeting, to be held at the New York Oil Heat Exposition, June, 1958.

"We're essentially a fun club," Frank Scully, Jr., President, explained. "We intend to leave the business problems to be solved by OHI and our other Industry business organizations. But there's a deeper significance to the name we've chosen for our group. To us, the term Good Timers reaffirms our belief in the great future ahead for oilheating. Most of us came into this field after the old timers' pioneering had gotten this Industry into high gear. And our intention is to help keep it in high gear with constant pressure on the oilheating sales accelerator."

Bernie Markwell, vice president, emphasized that the new club's rules have been planned to avoid conflict with the well-established Old-Timers organization, whose membership is restricted to oilheating men who have served in this Industry for a minimum of 15 years. "The Good Timers is open to membership for oilheating and fueloil men who have been in our Industry at least five years," Markwell stated, adding, "Our organization is intended primarily for the man in the 'middle ten years' of his oilheating career. After he's been in our Industry 15 years, the Good Timers' policy will be to encourage him to join the longer-established Old-Timers' club."



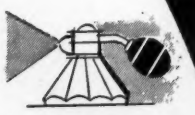
At the first meeting, a design for a Seal was agreed upon, to be used on letterheads, membership cards, and the Good Timers lapel pins. The Seal illustrates a champagne glass as a background, over which is imposed a drop of fueloil. Within the drop is illustrated an oilburner. The lapel pins, which have been ordered, will be of sterling silver, with the drop of fueloil and the oilburner defined on contrasting enamel colors.

Comments from a cross-section of

5

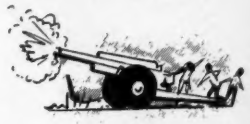
BIG REASONS FOR CHOOSING TYPE "W" ALL PURPOSE NOZZLES

GOOD ATOMIZATION
of catalytic or thermally cracked fuel.



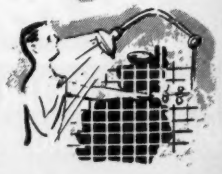
QUIET FIRES
Remarkable Freedom From Pulsation and other Flame Noises.

FULL DISCHARGE
Full rated discharge at nozzle operating temperatures.



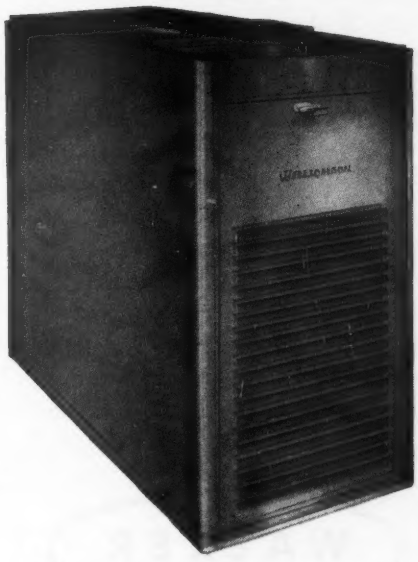
LESS CLOGGING
Type "W" nozzles are designed to substantially reduce the tendency to clog especially in the fractional gallonage sizes.

STABLE SPRAY ANGLES
over a wide range of fuel viscosities and temperatures.



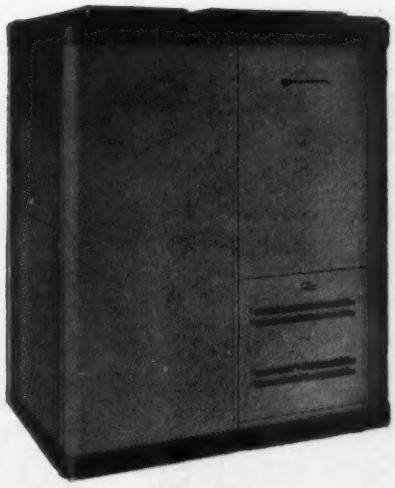
ASK FOR THE NOZZLE IN THE GREEN CONTAINER

DELAVAN Manufacturing Co
WEST DES MOINES, IOWA

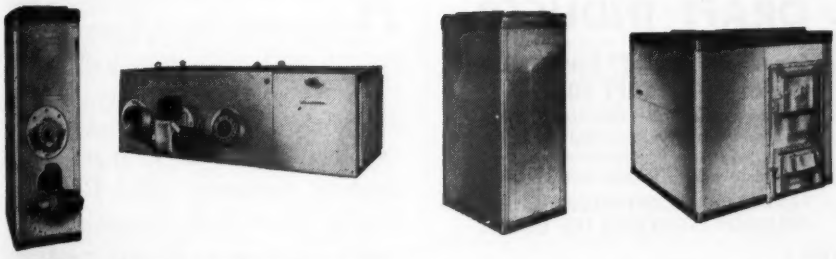


- *New Designs*
- *New Models*
- *New Colors*

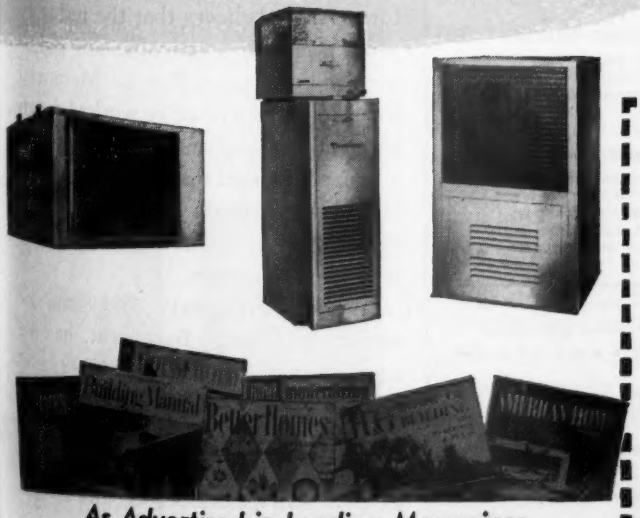
Blue-Gray Metalescent Finish



Two-tone Hammer Finish Green



Gleaming White Enamel



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THE WILLIAMSON COMPANY

3312-B-7 Madison Rd. Cincinnati 9, Ohio

Gentlemen:

Please send me information on the following:

☐ Heating Equipment ☐ Cooling Equipment
☐ Duct, Pipe and Fittings

Name.....*Title*.....

Firm.....

Address.....

City.....*Zone*.....*State*.....

men at all levels of this Industry, concerning the new club, were generally favorable. Most felt that there has long been a need for a social organization made up of the industry's younger members, and for those not yet qualified for Old-Timers membership. The list of charter members encompasses all distribution levels within the oilheating and fueloil Industry: dealers, wholesalers, distributors, major oil company personnel, manufacturers, and manufacturers' representatives.

These are the 42 Charter Members: Charles B. Armour, Rene O. Beauregard, Art Bierman, W. A. Brown, J. R. Bynum, Chester A. Cook, Jr., Martin Corman, Walter C. Crooker, L. A. Devlin, Jr., H. F. Dinehart, Leon F. "Pat" DiNicola, George E. Egan, Otto L. Eriksen, Edgar A. Green, Maurice H. Harbin, Nicholas G. Hayes, W. F. Horan, Raymond R. Jefson, Alfred F. Jevons, Charles A. Kahl, Jr., George Koenig, Ted Low, Bernard M. Markwell, Mark V. Moore, Irving L. Moss, L. A. Pelletier, Harry J. Potter, Hank Remsburg, Edward J. Rudden, Frank P. Scully, Jr., Robert G. Scully, Guy G. Smith, John W. Smith, J. F. Spitzel, George B. Sprick, Lee Steedle, Robert D. Sullivan, J. R. Theurer, Charles B. Tobin, Thomas M. Walczak, Ray Westlund, Jr., and I. M. Winston.

Membership dues are $5.00 a year. Ted Low, Treasurer, stated that the Good Timers expect to more than double their present membership total during the next two months. Full information on the Oil Heat Good Timers may be secured by contacting any Officers or Charter Members.

❖

OHI Accessory Division explores Film Expansion

AT THE ANNUAL MEETING of the Accessory Div. at Boston in connection with OHI's annual affair, the principal topic of discussion was the Division's slide film program. Chairman Stanley Czarnecki after a brief opening statement called Chairman Ben Wiechers of the Domestic Education Committee to describe results of the project.

There are now nine films in use, with 200 copies of these in circulation. Most active has been the nozzle training film with 90 of these going around.

On the average over the country there are two film showings being made each working day.

In discussing new possible sources for films, Wiechers said that his company (Webster Electric) will probably have one on pumps and transformers. He believes that the industry could well use a strip film on pulsation, if the present Battelle Memorial Institute project could be worked down to layman's language. There was also a belief expressed that one of the major oil companies might sponsor an educational film on a particular service or training application.

The OHI film library, under the direction of Charles Burkhardt, has an earned surplus on hand of $1,098.

Charles Lang, of Sundstrand Hydraulic Div., was elected the new chairman of the Division for 1957, and ex-chairman Czarnecki becomes a vice-president of the Institute.

1st IN DRAFT CONTROLS for 30 YEARS!
WALKER FUEL-SAVER AUTOMATIC DRAFT REGULATOR
Over 25,000,000 Now in Use for Home and Industry
WALKER MFG. & SALES CORP.
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DRAFT INDUCER
Saves YOU MONEY! Saves TIME! COMBINES 2 DRAFT JOBS IN 1!
Eliminates need for two installations by combining fan operated draft inducer with draft regulator control. Simple to install at any angle.
FAMOUS DRAFT CONTROLS BY WALKER PRECISION ENGINEERED FOR QUALITY
TYPE Z
Dial and Pointer adjustment—simplest design, easiest to adjust, maintains positive and accurate control under widest variation of stack draft.
TYPE 34B
Universally accepted for space heaters, water heaters, trailer stoves, and all budget-priced heating equipment.
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Extra rugged, heavy construction designed for commercial and industrial use. Actual installation proved it cut fuel costs in only three months, enough to more than pay total original investment cost.
ROYAL PURPLE MODEL
Walker's finest quality automatic draft regulator with all moving parts completely shielded from corrosion. Guaranteed performance.
WALKER BBG DOUBLE SWING CONTROL
Walker's BBG Double Swing Control regulates updraft, dissipates downdraft in gas-fired and combination oil-gas fired equipment.
VENTURI TOP FOR CHIMNEY CAPS
Unique Venturi design assures positive elimination of downdraft at chimney top . . for oil, gas or coal fired chimney vents. Patented pivots, balanced construction, guarantee maintenance-free long life.
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NAME
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CITY
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The first 35 Years

In which the author looks back and finds the Past interesting—the future Challenging

by
Louise Becker

THE EARLY chronological growth and development of *Fuel Oil for Heat and Power* and the oilburner industry was ably told by Robert Gray in the July 1952 issue, and by A. G. Winkler in the "1952 Fact Book," under the heading of "The interesting Past," when we celebrated our 30th anniversity.

Now we are 35, and the editor gave us leave to be chatty in these random reminiscences, without risk of being tabbed a garrulous old lady. Come to think of it, we are in what is referred to as the "aging group," else how could we have spent thirty-five interesting and fruitful years with this industry and still be here to recall it?

One of the things that prompted these pleasant reflections was the need to rearrange our "old photograph" files. We were nominated to put faces, names and deeds in proper perspective because we were on hand when that first issue of *Fuel Oil for Heat and Power* was launched on its uncertain voyage in July 1922. And uncertain it looked at that time.

There was an oilburner industry mainly because Harry Shaw and Leod Becker said there was in an editorial in that first issue. Having once made that declaration, and committed themselves to serving it with a publication of its very own, they industriously set about through broad vision and even more courage, to create and nurture the fledgling elements of an industry whose size today they could scarcely foresee.

Oil for generating power had been in use for some time. Refineries and industrial plants with engineers on full time duty were initially the chief users. Oil for heating purposes grew largely out of the "Heatless Mondays" decreed to save precious and scarce coal during World War I. Rampant and violent strikes in coal mines with uncertainty of supply was a potent factor. It was only natural that engineers and plant managers, seeing the results of clean automatic heat and power through use of oil, and the release of valuable space from coal bin litter in their plants, would begin to experiment with and adapt these mechanical devices to provide comfort and convenience for their homes. Chicago was the early center for domestic oilheating. Its climate, its dependence on Southern Illinois soft coal beds which gave householders as much dirt as heat, and its traditional tie-up with No. 3 oil, no doubt influenced its trend to oil. St. Louis, Minneapolis, even Boston, were not far behind. Toronto and Montreal in Canada and the Pacific Northwest were also experimenting. The most successful industrial and marine burner manufacturers, however, were located on the East and West Coasts, and in New Orleans.

Nokol, manufactured in Chicago, and headed up by that titan of rugged individualism, Morgan J. Hammers, made the first great impact on the domestic heating field. If my memory serves me, for the first few years after Nokol came on the market in 1919, that trade name was practically synonymous with oilburner, much as Frigidaire was later in the electrical refrigeration field. Our first experience with Nokol and domestic oilheating antedates our connection with *Fuel Oil for Heat and Power*. Leod was branch manager at Fremont, Nebr., for the L. V. Nicholas Oil Company of Omaha. L. V. Nicholas, always a power among independent oil men and possessing one of the sharpest merchandising minds in the business, had taken the distributorship for Nokol in Omaha and adjacent territory. We believe this to be the first instance of an oil company handling an oilburner.

There was a great deal of inherited wealth in the prosperous farming community of Fremont in 1920. There were many fine homes. All important families had two vehicles—an electric car for the lady of the house, a gasoline powered automobile for the man's use. This was a good market.

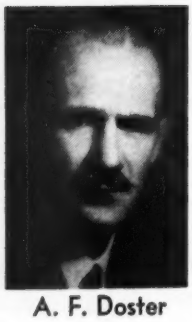
It was not going to be difficult to sell oilburners to the men, since convenience and not cost would be the deciding factor. But the ladies, bless them, were afraid of these new mechanical devices. And well they might be! Those first domestic oilburners with gas or oil pilot light and that tricky trip-bucket assembly for shutting off the flow of oil commanded the fearsome respect of early servicemen. We were not selling Nokol in Fremont yet when the head of the local creamery (whom we shall call Mr.

E. P. Bailey

C. H. Chalmers

W. S. Ray

M. S. Ray



A. F. Doster

L. L. Jacobs

Benson) saw our advertising in an Omaha paper, and insisted on having one installed in his fine home on Nye Avenue. An installation crew came out from Omaha and made the installation. Mr. Benson was very pleased. Mrs. Benson was fast overcoming her fears. We were very proud.

In the spring of that first heating season, we got an early morning call from Mr. Benson, saying there'd been a "little trouble" with his burner. That was undoubtedly the understatement of our 38 or so years experience with oilheating. The trip bucket had slipped off the hook, mucky oil covered a sizable area of the basement floor, the door was off the furnace, and black oily smoke and soot had filtered up through the heat ducts to every part of the house, leaving a fine greasy black overlay on walls, draperies, furniture, carpets, oilpaintings,—yes, even on Mr. and Mrs. Benson.

He never lost his composure, but Mrs. Benson was understandably suffering mild hysteria. Mr. Benson persuaded her to make a premature departure to Europe, while we brought a cleanup crew out from Omaha, who practically lived with us for the several weeks it took to clean up the house and get it back in livable shape. We like to think of Mr. Benson as one of the early devoted boosters oilheating needed. He never got cross or out of patience. He even thanked us for our fine service!

Business generally moved at a slower pace in 1922-23. Manufacturers, dealers, engineers, oil jobbers wrote us many letters; even a great many articles, sharing their knowledge and experience or theories through the pages of *Fuel Oil*. People were eager to know about oilburners. We suggested and arranged speaking engagements for burner manufacturing executives and dealers. Homeowners even wrote us asking which burner to buy. *Fuel Oil* became the clearing house for the growing pains of the industry.

Our first list of oilburner manufacturers contained the names of some 500 firms. Naturally it included the name of any firm who said it was making an oilburner, although some were for specialized uses, such as for heating glue pots in binderies or asphalt for application to expansion joints in roadways. However, fully one-third of that number were making some kind of a burner for domestic use. Gravity feed burners were popular and in use in areas where fire regulations did not forbid them. At least one oilburner was being sold by mail. We had a fine potential of correspondents, and since we'd chosen to serve this industry, they wrote us.

Fire Regulations

Early fire regulations were indeed discriminatory to domestic oilburners, and we got many letters on that subject. In the Domestic Fuel Oil Regulations of the National Board of Fire Underwriters, it said right out: "The use of oil as fuel for domestic heating purposes is considered more hazardous than the use of coal, wood, or coke." But even their members decided that clause was unrealistic by the summer of 1922, and voted to eliminate it, according to a news item in the September 1922 issue of *Fuel Oil*.

Local ordinances were even more restrictive than national regulations, and there was more reluctance on the part of officials to modify them. It was only natural for coal companies to cast a baleful eye at this new threat to their long-held market. They were in no mood to give up any part of it without a good stiff fight. And what a fight it was! Every mail brought letters of protest from manufacturers and dealers, with newspaper clippings in which fires were attributed to faulty oilburners. Some of them were legitimate, but in many cases investigation would disclose there hadn't even been an oilburner on the premises.

At times during the early 20s it almost appeared that fire officials were in league with the coal dealers. We wrote letters and *Fuel Oil* carried articles on the subject. There is no way of measuring the value of the time and energy early oilburner manufacturers, dealers, and oil jobbers gave individually and through their local groups to remove this discrimination from oilburners. Not only did they study to improve their installations, make suggestions for changes and improvement in equipment, but in effect they appointed themselves to act as committees to cultivate local fire marshals and municipal governing bodies, and thus promote oilheating.

It is no happenstance that much of the fueloil in the later 20's and 30's was delivered by coal dealers. They tried to lick this new competition, but failing that, followed the old axiom and "jined 'em." We are reminded of this when we hear dealers lamenting present-day gas competition.

Some local groups who gave forthright effort to eliminate the "scare" publicity, as well as practical advice and counsel on regulations and ordinances were the National Oil Burning Equipment Association, Chicago; New England Oil Heating Association, Boston, led by J. Parker B. Fiske; Michigan Independent Oil Men's Association, Grand Rapids; Seattle Oil Burner Dealers under B. H. Dow; and a group of Minneapolis burner manufacturers and dealers, sparked by Messrs. Chalmers, Bird, Horner, and Hubbard, who even boldly undertook an educational advertising campaign for oilburning, in which several oil companies joined. This was, we believe, the first instance of cooperative advertising by oil companies and oilburner manufacturers and dealers.

In the spring of 1923, a separate department was set up in the Under-

C. U. Williams

H. Linn

writers Laboratory to test and give label approval to oilburners for domestic heating. By early 1924 we see a news item in *Fuel Oil* reporting that ten domestic oilburners had been tested and approved. It was a laborious and irritating process to get burners through the Laboratory in the early 20s. Inexperience, misunderstanding of regulations and lack of uniformity in fueloil contributed to this situation.

We find E. J. Smith, Laboratory Director, in a speech before a joint meeting of the American Association of Oil Burner Manufacturers and the American Petroleum Institute (reprinted in February 1924 issue of *Fuel Oil*) appealing to the oil companies to establish some uniform specifications for fueloil so the Laboratory could secure in Chicago the kind of oil for testing burners that manufacturers from other areas had specified as suitable for testing their individual burners. He complained in that speech that recent samplings had produced three different flash points in samples taken from the same container of oil!

By the summer of 1923 it was clear to Publisher Shaw and Editor Becker that this was indeed an industry, as they'd said it was the year before. Twelve issues of *Fuel Oil* had produced enough material on the extent of the uses of oil as fuel and installation techniques for oilburning equipment to make them heady.

Need for Association

Correspondence and meetings with men in the industry gave evidence of increasing need for manufacturers to join together to further the use of oilheating, and be able to speak with one authoritative voice. Accordingly, a call was sent out to manufacturers, and page 32 of September 1923 *Fuel Oil* announced a meeting September 7th at the Congress Hotel, Chicago, to organize a national association of oilburning equipment manufacturers. Everyone was invited, yes urged, to attend. They did. To be sure there was some basic mutual competitive suspicion, but devoted interest, sound thinking, and a pervading sense of good will was the real stock in trade the founders of the American Association of Oil Burner Manufacturers brought with them to Chicago that September day.

The October 1923 issue of *Fuel Oil* reports the organization meeting highly successful and lists these officers. President, Wallace C. Capen, Home Appliance Corp. (Electrol Inc.), St. Louis. Vice-presidents: E. H. Peabody, Peabody Engr. Co., New York; E. G. Rhodes, Winslow Boiler and Engineering Co. (Kleen Heat), Galesburg, Ill.; A. M. Lockett, A. M. Lockett Inc., New Orleans; J. T. Vorhies, Coen Co., San Francisco; G. B. Baldwin, Fess Systems, Toronto. Directors were: Edward P. Bailey, National Airoil Burner Co., Philadelphia; John Scheminger, Aetna Automatic Oil-Burner Inc., Providence; C. E. Bird, Bird Oil Burner Co., Minneapolis; W. S. Ray, W. S. Ray Mfg. Co., San Francisco; B. M. Oliver, Oliver Oil-Gas Burner Co., St. Louis. Temporary Secretary, Leod D. Becker, *Fuel Oil for Heat and Power*, Galesburg.

Early Organization

A constitutional committee to make suggested changes in a hastily adopted constitution was composed of W. T. Dean, Combustion Co., Chicago; L. H. Van Ness, Federal Gauge Company (Mercoid Corp.), Chicago; and B. F. Geyer, Wayne Tank and Pump Company, Ft. Wayne.

The immediately succeeding years brought Edward P. Bailey, Lionel L. Jacobs and C. H. Chalmers in as Association presidents. They have continued their business and association activities down through the years, giving wise and needed counsel, and endearing themselves to co-workers and friends. We salute them as the elder statesmen of the oilburner industry.

In September 1923, another significant event occurred in the destiny of *Fuel Oil*. An apple-cheeked young man, fresh from the Missouri University School of Journalism joined the editorial staff as Associate Editor. His name—Arthur G. Winkler.

But I am ahead of my story. Many of the original advertisers who made that first issue of *Fuel Oil* possible and continued to appear in its pages for some time are no longer active in this field under their original names. One

J. C. Johnson

H. Van Ness

advertiser, Williams Oil-O-Matic does catch my eye and I am reminded of the first call on C. U. Williams to sell him that space.

His was a modest beginning. While he did have an arrangement with a foundry to make his heavy castings, we found him busy assembling some burners in the basement of his home. Entry into that workroom was through an old style slanting cellar door. C. U. was a unique and forceful character, as temperamental as they come. We'd heard that in his youth for a time he'd been a choir leader for Billy Sunday on some of his evangelistic tours. After he'd moved his flourishing business to a large plant of his own and had a national sales organization, we do know that at all their meetings he used to whip his sales organization into a fine pitch of enthusiasm with group singing. He was a staunch believer in advertising, and that slogan —"No Coal Shovel Was Ever Made To Fit A Woman's Hand"—did much to dramatize oilburning in its early years.

Individual basic patents snarled development when the oilburner industry was getting underway. As in any new industry, there was some permissive use of these patents, but there was much bickering, threatened suits, and general ill-will overlaying many activities. The Zoro Patent Estate, a pool of basic patents through which all member manufacturers could operate and benefit, was finally set up. The release of electric ignition patents by Scott-Newcombe was a tremendous boost to domestic oilheating.

It is to the everlasting credit and acclaim of these hardy pioneers that they had the ability to appreciate that the good of all was just as important as the gain of one. As we reflect on

(*Please turn to page* 136)

Back in the 1930's..... and looking ahead 25 Years

Pioneers doing oilburner Work 25 Years ago hoped for Improvements that have arrived

by
J. W. Schulz

OILBURNER WORK of the 1930's included many chores which seem odd today . . . especially to men new today in oilheating work.

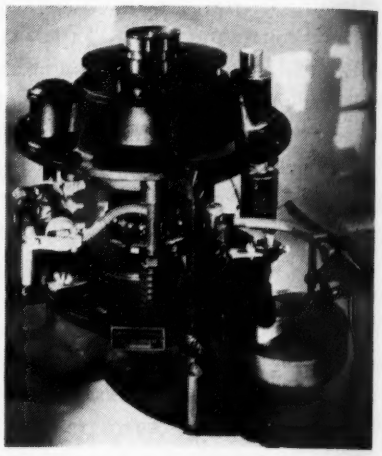
The serviceman working on typical oilburner installations in the 1930's had to know much about odd devices and pieces of equipment, which today have disappeared or are encountered rarely. He spent his days giving attention to house-heating installations which had pot-type oilburners, drip-bucket safety devices, oil pilots or gas pilots instead of electric ignition, the wall pumps used in thousands of homes, and power burners of types not seen today.

In the 1930's as today, burner dealers and men doing installation and service work concentrated on the electrical controls of an installation. All too often in those years, a dealer or serviceman listened to a homeowner complaint about bumpy on-off heating —but couldn't do a thing about it because replacing the thermostat was out of the question.

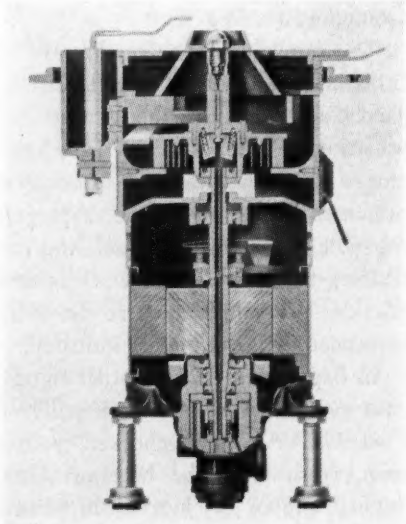
The room thermostat was, of course, one of those big, clumsy, ugly models containing a 10-ampere snap-switch or mercury tube. It was line-voltage type. After it banged "on" because heat was needed, it kept the burner running for 30 to 45 minutes with the result that the rooms received a big blast of heat. Then, in typical heating-season weather, the thermostat kept the oilburner idle for about three hours. At the end of the oilburner "off" period, the occupants were freezing.

Back in the 1930's, working on jobs having those old room thermostats that gave the 30 to 45 minute "on" periods, it would have been good to know that in 1957 we would have ultra-sensitive room-temperature control set-ups, including electronic set-ups, designed to provide the smooth heat that comes of oilburner "on" periods 3½ or 5 minutes long . . . or any longer period to match the characteristics of the particular oilheating system.

In the 1930's we were servicing certain burner jobs, some of them in use quite a few years, which had the weirdest "safety" controls a man can imagine. One burner manufacturer provided a "safety control panel" having a relay arrangement that flipped two ways—flipping it one way started the burner motor. Then the burner's shut-off valve, which was not electrical, opened because running the burner motor developed atomizing pressure. The room thermostat that caused the relay to flip on and off was of the single-pole double-throw type —call it the Series 20 type. Within the oilburner safety control panel was a little switch, in the thermostat circuit that had to close to flip the relay off and stop the burner motor. All that was needed to flood a boiler with fueloil was a combination of ignition failure and failure of this fragile little switch to close properly. Never were we surprised to encounter a boiler base and firebox loaded with 30 or 40 gallons of fueloil, squirted into it by a burner that ran all night following failure of the ignition system and of the safety control panel.



This oldtimer, *an* ABC *domestic oilburner, was outstanding for the high speed, about 10,000 rpm, of its direct-driven vertical-shaft atomizing cup. Ignition was provided by a gas pilot. The drip-bucket at the lower right, which triggered a weight used to slam shut the oil-input valve, provided safety following ignition failure.*

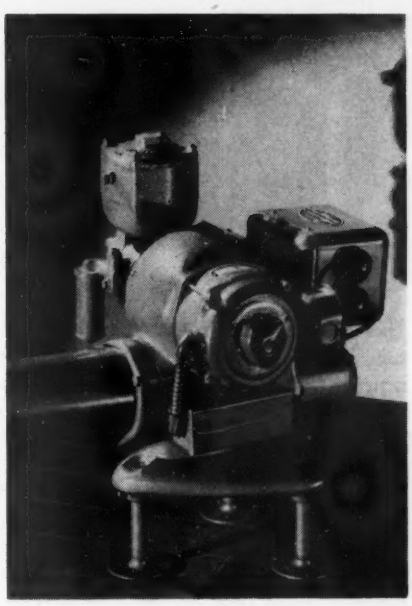


This vertical-rotary *featured a spinning atomizing nozzle, electric ignition, and a shut-off valve located directly under the nozzle and operated by centrifugal force. It also had a centrifugal blower to provide forced draft for its flame . . . whereas many vertical rotaries of the atomizing type years ago used only natural draft or chimney draft.*

As the 1930's went on, many burner dealers, service managers, and servicemen—and even factory engineers —realized that the early burners shouldn't have been equipped with control devices made by burner manufacturers, but should have been equipped with standardized electrical safety controls made by companies specializing in such controls.

The safety control for one atomizing vertical rotary burner, which the burner manufacturer had dreamed up, consisted of a mercury tube switch supposed to tip "on" when a heat-sensitive arrangement was affected by

Although *pioneer and largest producer in the field of horizontal rotary-cup burners, from time-to-time Ray has brought out different models of gun burners. Some of these represented ahead-of-their-time efforts to use residual fueloils, or other oils of such high viscosity as to need heating before pressure nozzles could atomize them. This burner represents an early Ray effort to bring out a pressure burner equipped with an electric oil heater. Most early efforts of this type were unsuccessful, but today several manufacturers offer gun-type burners equipped with electric heaters and well able to use fueloils heavier than No. 2.*



When it made *its appearance, this Model K-3 Williams Oil-O-Matic for 1.0 to 3.0 gph made history . . . because, though it employed the identical oil-handling and atomizing principles of an earlier Oil-O-Matic, it was much more compact, and its design was exceedingly modern for that time.*

heat from the burner's gas pilot. If the pilot went out, metal parts cooled and contracted, and were supposed to cause the mercury tube switch to open. That kept the burner off. But the heat-sensitive metal parts froze and stuck in "pilot on" position on many jobs, if you didn't take them apart and free them up every heating season. That was the reason many of these burners kept on running for hours and hours, after their gas pilots had gone out, and caused bases of furnaces and boilers to be flooded with oil.

Cleaning up and firing up a firebox, after it had been loaded with 10 to 30 gallons of fueloil, was a trick a serviceman had to do often—back in the 1930's. Often after he had lighted up, anxious to provide heat for a building without heat all night in zero weather, he wished he hadn't. Lighting up set on fire the gallons of fueloil still soaked in the firebrick and back-fill of the combustion chamber. As the smoky blaze in the boiler got bigger and bigger, the serviceman learned to his dismay he had a tiger by the tail. Keeping the boiler's firing door closed caused boiler trembling and smoking, and brought "boom" blasts from the air-starved smoky flame—"boom" blasts loud enough to cause occupants of the building to call down to the serviceman in the smoke-darkened boiler room and ask him if fire engines shouldn't be called.

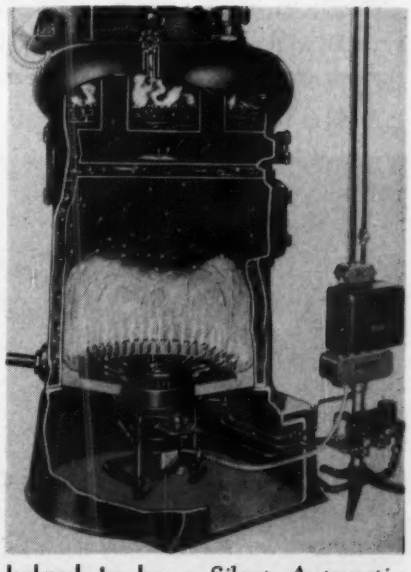
When the "boom" blasts reached a certain intensity, then, the serviceman felt compelled to open the firing door to stop the noise—and to avoid blasting the insulation from a sectional cast-iron boiler. But opening the door caused flames and smoke to pour out of it, or admitted air to the firebox which urged the blaze to become still worse, or did both bad things alternately. Excellent judgment was needed to decide whether to keep the firing door open or closed, or how many seconds to keep it open and how many to keep it closed. Experts never have agreed about these things, perhaps because every personal experience with them has been different!

I personally can vouch for the fact that no nice way exists to start up an oilburner quickly, when a cold building must have heat in a hurry, after an apartment-house firebox has had about 80 gallons of fueloil squirted into it by a 10 gph beserk burner that ran all night because its safety controls failed to work following failure of its ignition system.

Serving as consultant for a burner manufacturer in the early 1930's, and working on actual installations being studied in his home town, I was warned the fire engines must not be called out.

"Not again!" he said emphatically and positively. "Bowing and scraping to the coal companies, who do much newspaper advertising, the local newspaper publisher makes a front-page story out of any little oilburner misbehavior that makes the fire engines go out. If a building catches fire and is on the same block as one of my oilburners, this newspaper publishes an item that says my oilburner did it."

Innocently visiting the 10 gph apartment-house job at eight o'clock on this certain cold morning, aiming merely to use an Orsat and other combustion-testing instruments, I found the burner motor devilishly running and squirting oil into the firebox. What's more, clearly the burner had been doing just that all night, but the ignition system had failed, and oil had squirted into the boiler all night.

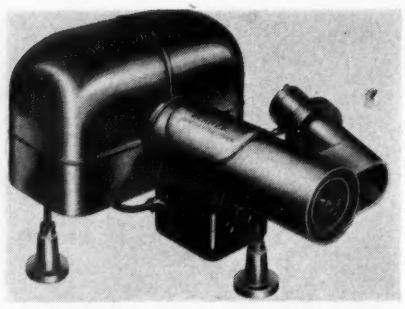


Judged to be *a Silent Automatic, this wall-flame oldtimer boasts of a high-low gas ignition system. To minimize use of gas, only a tiny gas flame burns when the oilburner is idle. Then as now, the available wall-flame rotaries had no integral oil pumps. They received oil by gravity, through constant-level valves, on inside-tank jobs, and needed wall pumps on outside-tank jobs. Their great popularity years ago caused the installation of untold thousands of wall pumps.*

The freezing tenants were doing very well hollering for immediate heat. Worse, the owner arrived on the job, for he'd been summoned by the tenants, and he proved to be an expert at demanding heat immediately with no if's or but's from me.

I had no alternative, I concluded, but to say I'd fire up within 15 minutes. Everyone had to get out of the boiler room, however, for this was personal between me and the oilburner.

After mopping up as much oil as I could from the firebox, the boiler base, and the basement floor surrounding the boiler, I lit off the oil-soaked firebox by running the burner a minute or two with its ignition system repaired and working nicely. Within ten minutes an inferno I judged equal to about 35 gph was burning inside the boiler normally fired at 10 gph. I was using a big piece of water-soaked cloth to swat at oil flames that appeared more and more persistently about the boiler base as the minutes went by, but I could see I was fighting a losing battle. In 20 minutes, the oil-soaked boiler insulation would be nicely aflame. The insulation was well oil-soaked because the installers of the vertical sectional boiler had not used furnace cement in the spaces between sections, but had filled in with only asbestos cement.



This Bethlehem Doe *model 151 pressure burner is interesting because it is representative of the many oldtimers which used the* M-H *Protectostat to monitor their oil flames. Some burners used Protectostats fastened to their gun tubes, while others mounted them on firing doors of furnaces or boilers. A service expert recently declared the Protectostat was 'way ahead of its time . . . said that on the commercial-industrial jobs he used to service, he could achieve four-second burner shutdown following flame failure if the Protectostats were adjusted right.*

Having orders, which I had to obey, not to call out the fire engines, I made a quick decision. I drove to a firehouse, fortunately only three blocks away, and announced I knew where an apartment house was on fire. After getting the idea, the first fireman I spoke to declared that if I was to get what I demanded, the biggest fire extinguisher I could carry but no fire engines, the fire chief would have to okay the deal.

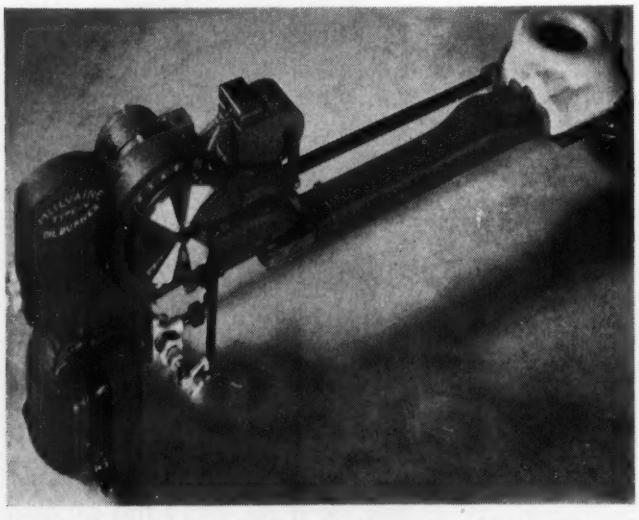
"I can have you arrested right away and put in jail," said the fire chief, "for telling me an apartment house will burn down if I won't give you a big fire extinguisher, but refusing to tell me where the apartment house is. It's our business to put that fire out before it gains headway. It's not your business."

"Put me in jail, or even delay me another few minutes," I warned him, "and the apartment house certainly will burn down because I certainly will not tell you where it is." Getting a bright idea, I added, "And there are many women and children in the house, and I'm the only one who knows it's on fire."

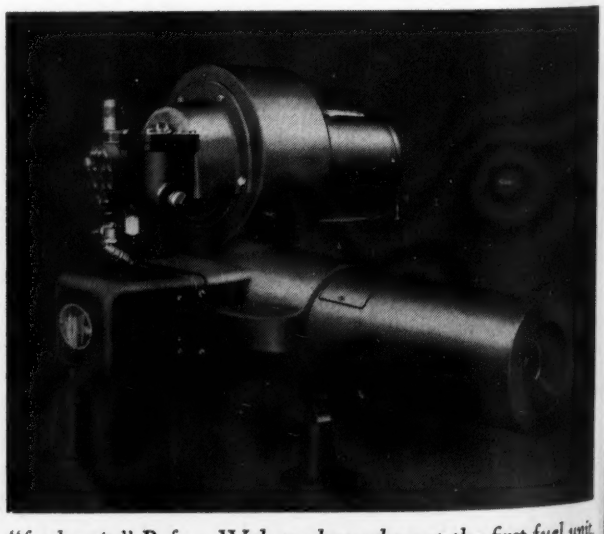
Although I would not give any reason for not telling him the location of the apartment house on fire, finally the fire chief capitulated. I had convinced him fully, for when I offered to leave my driver's license and car registration certificate, so he could be sure I'd return his extinguisher, he would not take them, but told me to hurry along and put out my fire.

As I drove off he called out to me,

(*Please turn to page* 108)



A classic *was this old McIlvaine Type* V *pot-type oilburner (left), which gained interest because of the step-action of its room thermostat and gph-control system. It provided six fire sizes, thus produced a flame of proper size for the heating load at any particular time. The damper motor provided the step action that changed the rate at which a centrifugal blower forced air to the flame, as well as to the gph-rate of oil flow to the vaporizing pot.*



Here's one *of the first pressure burners (right) to sport a "fuel unit." Before Webster brought out the first fuel unit, pressure-burner manufacturers coupled together feed-line strainers, atomizing pumps, pressure regulator valves, and automatic nozzle-line shut-off valves . . . and often used oil-handling parts of different makes. An early objection to the fuel unit was, "If one part goes bad, we'll have to replace the whole thing, for we can't replace just its worn-out oil pump, for example." That and other objections soon proved silly.*

On our 35th Anniversary—

Friendly Comments from Pioneers

R. F. Andler, president, Electrol Burner Manufacturing Co., Inc., Rutherford, N. J.

FOR 31 LONG YEARS, have neglected to congratulate you on the wonderful service you render to the oilheating industry. I know of no other trade paper whose entire staff devotes such personal interest and effort to individual problems. Please accept my sincere best wishes for your continued success.

Andler

Bailey

Edward P. Bailey, president, National Airoil Burner Co., Philadelphia, Pa.

THE HALF OF A LIFETIME that has passed since the first publication of *Fuel Oil for Heat and Power* seems to have gone very quickly as we look backward. Many of the individuals who were engaged with us in our industry in its earlier days have passed out of our picture in one way or another, but the progress of the industry has kept pace with general economical conditions in our country. All of us are grateful to FUELOIL & OIL HEAT for the efficient and pleasant way in which they have guided us and have kept us all in touch with one another.

Our industry is virile and offers as big things in the present and future as we have accomplished in the past. My own company, continues to enjoy a prosperous and pleasant relation in the industry and looks forward happily to the future.

R. W. Beckett, president, R. W. Beckett Corp., Elyria, Ohio.

WHAT OF OUR FUTURE? The oilburner industry has passed from adolescence to maturity. It should be capable, therefore, of conducting its affairs on a realistic and businesslike basis to the end that it will prosper and not be dragged down. The leaders of our industry should recognize this and do something about it. Through intelligent cooperation we can enjoy belonging to this industry and can open new vistas for a bright future.

Charles B. Bendix, Exec. Vice-President, Sundstrand Engineering Co., Rockford, Ill.

CONGRATULATIONS on the 35th annivesary year of FUELOIL & OIL HEAT. Having followed the publication since its inception and having had the privilege of close association with those that labored to maintain it on the highest level, I feel it is part of my business, as well as private life. In covering news, progress, records and personal relations no one could have done a better job. All of you have made it a must to read and to keep. To all of you, my sincere wishes for a continued success through the years ahead.

Beckett

Bendix

Norbert G. Berghoff, president, Wayne Home Equipment Co., Inc., Fort Wayne, Indiana.

CONGRATULATIONS on this your 35th year of service to the oilburning industry. We, being one of the five oldest manufacturers in the industry, can fully appreciate the important role FUELOIL & OIL HEAT played in the development of oilheating throughout the years. Your energetic and progressive efforts were instrumental in no small way in keeping this industry intact during the early years as well as the periods burdened with oil rationing.

May you have continued success, and may the burdens of the next 35 years be lighter as a reward for your efforts in the past.

These good wishes are from pioneers who manufactured oilburners in the 20's and are still active in the industry.

Berghoff

Bock

Oscar L. Bock, president, Bock Corp., Madison 3, Wisconsin.

IT IS ALWAYS a pleasure to see someone succeed and especially when it is someone in your own industry. Today we can look back over 35 years to recall the pocket size *Fueloil Journal* of the 20's. We looked forward to its coming each month and enjoyed reading it. Our ads always brought best results in the Journal and that is still true today. By following a conservative policy through the years FUELOIL & OIL HEAT has grown to be the symbol of our industry.

James L. Breese, president, Breese Burners, Inc., Santa Fe, New Mexico.

IT HAS BEEN NEARLY 33 years since I first conceived the idea for the research and development of oilburners and related devices. During this time FUELOIL & OIL HEAT has been a constant help to me with its timely hints

and suggestions in my work in this field. Our oilburners have become internationally famous and are now used by the majority of heating appliance manufacturers in the United States and Europe.

Breese

Brooks

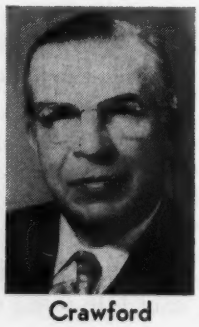
W. D. Brooks, President, General Oil Heating Corp., West New York, N. J.

Compared to the production of 32 years ago when we first entered the business the oilburner of today is a much improved product that can produce and maintain a high quality clean combustion when installed in accord with basic combustion requirements. If these basic combustion requirements are made the foundation of every installation, and are also provided for in the design of all new oilfired equipment, then our industry may attain to the potentialities it holds and reach its fulfillment.

C. H. Chalmers, president, Chalmers Oil Burner Co., Minneapolis 1, Minn.

WHEN ONE is past 87 years and still at his desk six days a week—it's not as easy as it used to be to answer lightly and hopefully your kind invitation. I congratulate FUELOIL & OIL HEAT for the fine success that has attended its years of steady hard work. As I compare the last number with the little first number published back in Illinois long ago, I must express my gratitude.

Chalmers



Crawford

As to the future of oilburners—well, it has looked recently as if gas was taking the field away from oil heat, but lately the tide is turning back to oil. The public feels safer and more independent. As to betterments in the use of oil, the industry should go to the use of the improved combustion chamber. This means better economy, more cleanliness, and improved user satisfaction.

T. A. Crawford, York-Shipley, Inc., York, Penna.

In 1925 when oilburners beckoned, they challenged engineers, sales and management people to perfect a product, create a market and develop a profitable business. Additionally, they promised to perform an invaluable service for users. Ten million installations later, oilheating has revolutionized the life of America, and justified the hopes of many unnamed pioneers. My thanks for participation in the formative years of a great industry, and for the wonderful friends I have made. Their next quarter century can be fabulous!

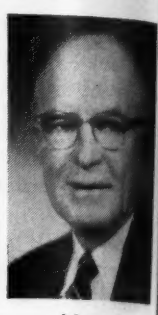
Arnold Eckhart, Sr., president, Eckhart Mfg. Co., Inc., Union, N. J.

CONGRATULATIONS TO FUELOIL & OIL HEAT on its 35th anniversary. The oilburner industry has progressed tremendously since the early twenties and FUELOIL & OIL HEAT can be proud of the part it has played by keeping the industry informed of the latest developments and methods for up-grading oil heat. We, as advertisers over these years can recall many accounts which were a direct result of our advertisements in FUELOIL & OIL HEAT. May we extend our sincerest hope for your continued success.

Sid Harvey, president, Sid Harvey, Inc., Valley Stream, N. Y.

I am sure that the oilheating industry should be as grateful as I am for FUELOIL & OIL HEAT. I have read and profited from every issue since I got my first job selling oilburners for Buckley & Scott in Philadelphia, some 34 years ago. It was, and still is, a gold mine of information for the growing industry. I don't know how we could have done without it.

Eckhart



Harvey

The magazine was also a very welcome source of additional income during the depression, by actually paying me to write a column called "Sid Sez." Later, when I formed Sid Harvey, Inc., I found that it paid to advertise in the magazine. Next July, by the way, will mark the 20th year in which we have advertised in the magazine in every issue. There is no doubt but that it has been a material help in our growth from a one man outfit to our present 47 store, 500 man organization.

Joseph Hearst, President, Automatic Burner Corporation, Chicago 12, Ill.

Orchids to you on your 35th anniversary! Let me be specific about one particular orchid. Thirty-five years ago, our company advertised in Volume One, Number One of *Fueloil For Heat and Power*. And throughout the years your fine publication contributed to our success by carrying our message to the top men in the industry. You have been active in the oilburner business for thirty-five years. I have been active in the oilburner business for only thirty-four—since four years after our business was started. That's a long time for both of us. And—in your business, as in mine—old age is wonderful.

George E. Hochstein, general manager, Heating & Cooling Div., The Heil Co., Milwaukee 1, Wis.

CONGRATULATIONS from all of us at Heil on your 35th anniversary. In this exacting business world milestones such as you and your organization now enjoy only occur because they are earned through good business policy, vision, planning, fair dealing and offering a good product year in and year

Hearst

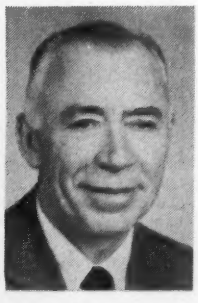
Hochstein

out. Your publication has not only been helpful to us, but it has been a real asset to the oilheating and fueloil industries. Our best to you all for continued success.

Lionel L. Jacobs, president, Lionel L. Jacobs & Son, Wayne, Pa.

MY CONGRATULATIONS on your 35th anniversary come more because of the job you have done than for the number of years you have been doing it. Thirty-five years of fact finding and of drawing correct conclusions from the facts is a work of which you can well be proud. It's an amazing library-history, culture, practice. I doubt if any other journal can boast of so complete a fulfillment of an industry's needs, so competent a timing, so forthright a policy. There will still be an oilburner industry at the end of another thirty-five years and a FUELOIL & OIL HEAT.

Jacobs



Jordan

F. M. Jordan, general sales manager, Scaife Co., Oakmont, Pa.

CONGRATULATIONS on your 35th anniversary of FUELOIL & OIL HEAT. I'm sure everybody regards it to be an industry standard for unbiased and accurate reporting about what's going on in the oilheating business. Hardly a week goes by that we don't refer to your magazine for some bit of information about new products, trend of sales, hints on new service techniques, or to read a helpful article sent in by somebody in this business. Keep up the good work.

J. S. Kaplan, president, Preferred Utilities Mfg. Corp., New York 23, N. Y.

THE EAGERNESS, enthusiasm and aggressiveness you all have displayed since the early days have rightfully earned for you the outstanding position you have held in the oilburning industry these past 35 years. The road to this plateau has had its full share of obstacles and at times has been steep, as one of your contemporaries who has travelled it with you over this period full well knows. The knowledge of your contribution to the success of our industry and, as a result, the benefits bestowed on the public in general should be more satisfying. Congratulations and best wishes for another 35 years of service to the industry and to the public.

Kaplan

Lattner

E. J. Lattner, president, Century Engineering Corp., Cedar Rapids, Iowa.

IT IS WITH PLEASURE that I congratulate FUELOIL & OIL HEAT magazine on its 35th anniversary and commend your fine work over the years in not only aiding the growth of the oil heat industry but also in your successful attempt to upgrade the products sold and the installations made.

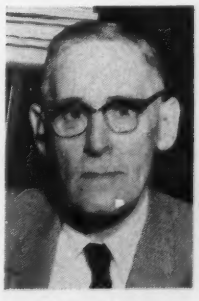
W. F. Klockau, president, The Nu-way Corp., Rock Island, Ill.

WE FULLY UNDERSTAND what 35 years in the oilburner industry means because we have just passed our 35th anniversary. Congratulations! Your magazine has had a very important part in the growth of our industry and we are sure it is used as a reference by practically every individual in it. While the present period may be somewhat unstable our industry has weathered worse conditions, and we have every reason to believe that more prosperous years lie ahead.

Robert Lee, president, Bettendorf Oil Burner Co., Marshalltown, Ia.

I BECAME actively engaged in the oilburner industry in 1923, selling, installing and servicing oilburners in a mid-western city. Since that time I have been engaged in practically all phases of the oilburner industry. Within the recent years it has been gratifying to note that the more progressive oilburner manufacturers in the country are developing more and more of their engineering efforts to develop a higher range of efficiency on the smaller inputs and I am quite confident that before too long we will be able to burn oil very efficiently in almost any type of a heating plant in inputs ranging from .50 GPH to .85 GPH.

FUELOIL & OIL HEAT is to be congratulated for its untiring work over the past 35 years in which they have been the industry's leading trade journal. I want to extend my thanks and appreciation for the work done for all of us engaged in this industry. May you continue on for another long span of years.



Lee

Reif

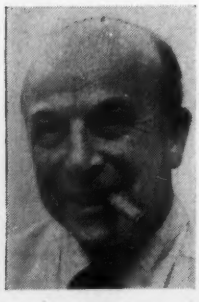
Charles Reif, president, Reif-Rexoil, Inc., Buffalo 3, N. Y.

AT REXOIL, we feel that the greatest challenge will be to show as much progress by the year 1992 as the industry has shown in the last 35 years. Unfortunately, the men who pioneered with us those many years ago will not

be the ones to accomplish this task. For that reason, we at Rexoil have developed a youthful new management team. Last year they introduced a new little burner designed specifically for modern boiler and furnace packages. This year they are working on gas-oil combination units, and a revolutionary high-hear combustion heat. It is this kind of aggressiveness and foresight that will help the industry keep in front and make the next 35 years the best in our history.

N. H. Richfield, manager, Accessories, Burners & Controls, American-Standard Plumbing and Heating Div., New York 18, N. Y.

THE OILHEATING INDUSTRY has made great strides since the time when an oilburner was a curiosity to its acceptance today as an important adjunct of modern living. It has been my privilege to take part in this progress and to watch FUELOIL & OIL HEAT fulfill the communication needs of the industry. While we can take part in our achievements, the industry still faces challenges in original research, imposed servicing and installation techniques and better technical training. Here lies the opportunity for even greater growth in the years ahead. I feel confident that such progress will be sparked by the efforts of your publication—as it has been for the past 35 years.



Richfield

Smith

E. K. Smith, president, Hart Heat Div., Peoria, Ill.

ANNIVERSARIES are great moments to reminisce and resolve. When any endeavor passes the 35th year milestone, it should receive more attention than just another pebble along the journey. Thirty-five years is a long road and calls for long term thinking. To the entire staff and associates down the line at FUELOIL & OIL HEAT, we extend our heartiest congratulations (and I might add heartiest best wishes) on a job well done.

Looking back personally from 1920, I can say sincerely that no one will ever be able to put a dollar value on the manifold contributions you have made to our industry from its birth through those 35 wonderful years. Looking ahead we here at Hart only wish that for another 35 years you will carry forward the torch of oilheating and airconditioning with unswerving vigor, courage and tenacity of purpose. Given a desire to improve, in the future, equal to the desire of the past, who can say what new horizons will be opened?

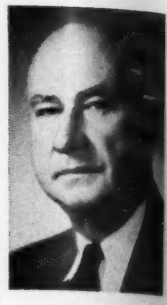
R. M. Sherman, president, The Silent Glow Oil Burner Corp., Hartford 1, Conn.

MY HEARTIEST CONGRATULATIONS to FUELOIL & OIL HEAT on your 35th year of service to the oilheating industry. For 33 years I have been dedicated to the proposition that oil is the superior fuel wherever it is used properly and its advantages become more and more apparent as we move into specialized fields of competition with gas. The interest of OHI in quality labelling is a positive approach to burner improvement. With the development of this kind of thinking, I believe the future for the industry is good.

Felix Sposito, Sr., president, Gold Star Oil Burner Mfg. Co., Inc., Yonkers, N. Y.

Congratulations and best wishes to FUELOIL & OIL HEAT on your 35th anniversary of service! I am happy to have been a part of the progressive accomplishments of the oilheating industry. FUELOIL & OIL HEAT has been the medium of keeping the industry abreast of the latest developments and source of technical information for our industry. It was this publication which was responsible for the contacts we made with our first account in Holland years ago and as a result today of world-wide trade. You have contributed greatly to keep the industry at a standard of high quality.

Sposito



Sherman

Reminiscing over a period of years I can't help but recall the business associates who have become my life-long friends and it is with pride that I have this opportunity to express my gratitude to the members of the oilheating industry. An old saying:—"May Your Shadow Never Grow Smaller!"

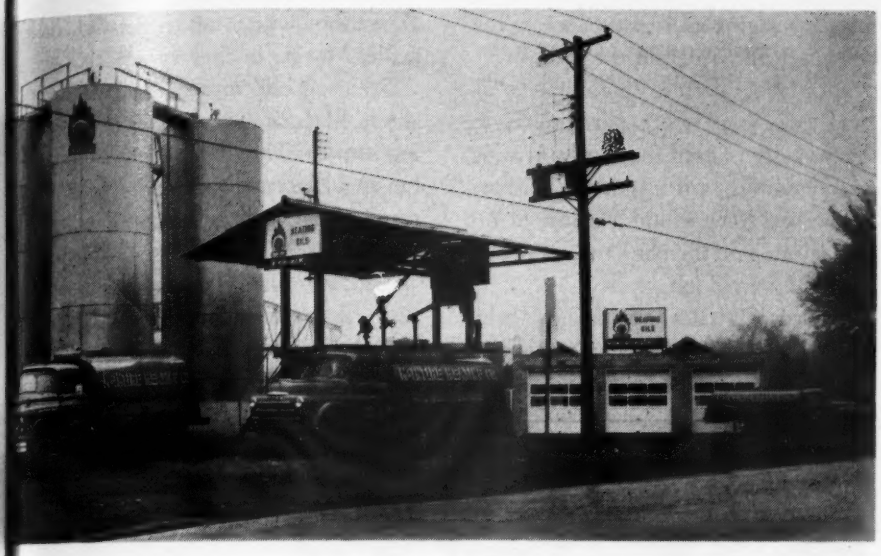
A. A. Stutzman, president, Stutzman Oil Burner Co., Clifton Heights, Penna.

THE OILHEATING INDUSTRY having grown up and now leveling off in volume should guard against looking backward to the period when it had a clear field in automatic heat for homes. Since the public is becoming more conscious of comparing heating fuels, our future should be directed more towards technical improvements and new equipment, looking to greater efficiency and ease of service, as well as better trained personnel loyal to both employer and customer. If we do this sales will follow.

James T. Watters, Concord Oil Corp., Lawrence, New York.

FOR 35 YEARS FUELOIL & OIL HEAT has been a constant companion. It is hard to believe what the industry would have been without it. It has been informative, it has been personal and it has been educational. So many of us take our trade papers for granted, not realizing the abundance of time and energy it takes to make them so attractive to readers like myself.

Watters



Modern 80,000 gallon plant. *McIntire only started in the fueloil business in 1949 although he and his father before him had sold heating for many years. Going into fueloil, he points out, was to get some of the rewards from the fuel demand his heating sales were creating. In eight years he has built 1½ million gallon annual volume almost entirely by equipment sales.*

Care for their every Need

McIntire successfully adds Cooling to a highly refined oilheating Business

OFF THE PENNSYLVANIA Turnpike and down a peaceful valley notched between South Mountain and Tuscarora, the warm spring day called for anything but work. A lot of folks had the same feeling, for the open season on trout was only two days old and it had started extra well according to the talk in Chambersburg, our destination.

It was the proper setting for the story we were about to investigate. For some time we had known personally R. C. McIntire, that he came of an old family in the heating business . . . that he had successfully gone into fueloil and had some kind of unique service arrangement.

We were to also learn that he is enthusiastic about airconditioning. "In five years," he says, "every new heating job will have it."

Chambersburg has 22,000 population. It's not a suburb of some metropolis, but a distinctive community quite distant from any large place. It was noted in the Civil War as the Confederates' jumping off point for Gettysburg. The wide lawns, the big elms, the columns are still there. There couldn't be a finer place to live, if you could make a living . . . build a business along modern lines. This McIntire has done.

McIntire sells principally Lennox furnaces and cooling equipment, Columbia boilers and Gulf fueloil. To say that he "sells" them is just right because he personally is the whole sales force. Not only that, but his whole office staff is Mrs. Ernest Angle who does everything from degree-days

Warehouse, duct and pipe shop, *with McIntire and his eight men who handle every phase of his oilheating and airconditioning business. The only other member of the team is Mrs. Angle who handles accounting procedures.*

to collections, and there are a thousand oil accounts, all with burner service.

The rest of the organization is eight men who work all year. They install an average of a hundred new jobs, service the heating plants and drive the three oil trucks. While they are not all top mechanics they each have enough experience to help all around.

Perhaps it was the cooling phase that interested us most, not because so much has been done but because McIntire is enthusiastic about its future for him. Last year was his first of any significance although he had done occasional jobs before that.

A dozen went in during the past 12 months, and this year promises to be considerably stronger, especially so if it's a hot summer. It is curious how a hot spell can interest folks in making a very substantial investment that they might otherwise have put off. Impulse buying, then, will be a big factor in cooling sales, especially when a new heating plant is not needed.

They love Comfort

Folks who have used window units in their homes—some of them for six or eight years—have learned to like cooling, but they're tired of doing it half way and they know that sooner or later they'll go all the way.

This is a nice situation for a dealer who is serving a thousand families with oil and service, and even more significant, nearly every one of them originally bought his heating plant from McIntire. That's how he got their oil business.

Most of the airconditioning jobs he has done thus far have been in existing homes rather than new ones and the connections were made to the heating duct work then in use. This has worked out pretty well in one-floor homes, not so well in two story houses. Those are inclined to be too cool downstairs, not cool enough upstairs. Even on new homes this is a problem unless there is a good engineering job done.

For example, McIntire in heating prefers to use the modern baseboard diffusers, but he finds that they don't handle enough air for good cooling. So he's worked out a by-pass in the framing back of the diffuser and he installs a high wall register for cooling only, straight up from the diffuser.

As a general rule, he has not gone after new home work particularly in the past two years for either heating or cooling—the prices got too wild for him. Some come to him because of his reputation, and then he can get enough to afford a good job.

The cooling sales thus far have been mostly to his oil customers, although he has not pushed them, even with mailings. But he has had to feel his way and now says he's ready to jump. He will start mailings to his oil users right away.

When asked what he gets for typical cooling jobs McIntire named some recent examples. There was a three-ton job in a one-story house, with new separate ducts for cooling only, sold at $1,250. Other jobs that size using old ducts ran from $850 to $1,000 depending on conditions. A two-ton job using old ducts brought $800.

Admittedly, these are not high prices. In each instance they are below the list price, but he's making a little money on them and showing folks he knows how to do them. "Most heating dealers are still shy of cooling," says Mac, "but that will change. All of the jobbers' men that come around are pushing it, trying to persuade the dealers to go to factory schools."

From outside sources we had heard about McIntire's unorthodox oilheating service. There was some criticism, but as we learned the details we recognized again that it is foolish to generalize about an industry as widespread as ours. What's good some places may not be in others. Certainly Mac has a deep rooted following and he makes money.

He has been criticized for "free" service, but that isn't actually what he does. When the fueloil delivery work load ends with the spring, the drivers spend most of their time in some section of the heating department. Every oil account gets each year a clean-up job with a vacuum unit, and for this no specific charge is made. But with each cleaning operation the men install new air filters, new oil filter and if needed a new nozzle. The average charge for these runs $6 to $7.

The men work in pairs, one heating expert and a helper, and they clean eight jobs a day although not always in eight hours. During the year some customers need additional service and for that they pay a $6 minimum charge based on one hour at the house.

The big point, though, is that much

Office and showroom *built as a wing from McIntire's residence has an air of prosperity and it's convenient for the occasional night service calls.*

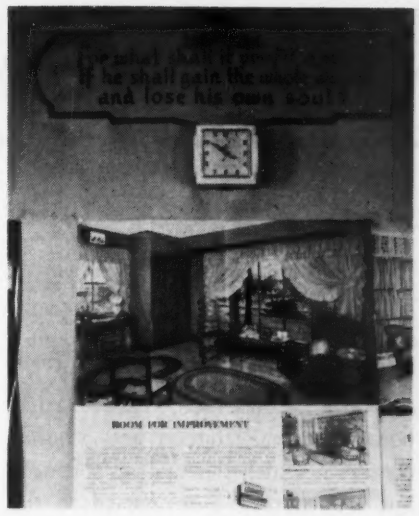
less service is needed under this system than used to be the case. McIntire says that the winters some years ago were a real headache in a small organization like his. There were lots of service calls. He started the present system to try and stop this pressure and it worked.

Since his office is in a wing built onto his house, he or his family take any night calls. Now it's a rare week that has more than two or three. The calls are relayed to whichever man is standing by at his home.

Especially important, the service work pays its way without loss and every oil customer is practically forced to have good heating with minimum awareness. When asked if the customers ever complain about his charging for filters and such, he explained —"They don't object because they don't think of it as free service, simply as a complete service, and they feel that it's tied into getting their oil from us. When occasional persons call us to start delivering oil we question them, partly for credit reasons, and particularly ask why they chose us. Most often it's because 'we learned that you take care of the oilburner too.' No reasonable person minds paying for anything if he thinks he gets his money's worth, and our folks think they get it in good heating."

Because the annual clean-up job must be done at whatever day fits best into the company's work schedule it is not done by appointment. The oil driver or the service man usually knows how to get into any house so they just go in and do the work, unannounced.

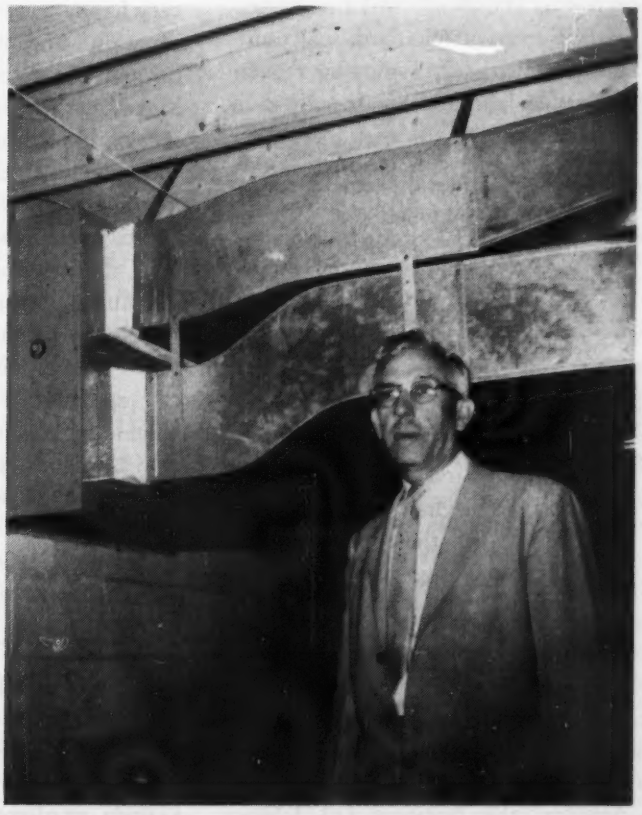
In such an atmosphere of customer confidence, McIntire should do well in his new venture into cooling, now that he's "ready to jump."



McIntire's spiritual interests *are apparent to showroom visitors from this wall text above the clock. An active layman for the past 25 years he is treasurer of the Greenwood Hills Bible Conference which has a group of assembly buildings in a parklike area seven miles from Chambersburg. Considerable numbers come for parts of each summer.*

And it will be good cooling, fine workmanship, because in a town that size you can't do bad work and stay long in business . . . too many people know about it. And think how any reflection on his capability going around the town could injure his annual sales of a quarter million dollars worth of fueloil. There's no stiffer taskmaster than a town of 22,000 population, yet where could you find greater rewards for competence?

This three-ton cooling job *with outside mechanical unit employs a separate duct system because the heating of the new home is done by circulating hot water. McIntire shows it off with understandable satisfaction.*



Here's a two-ton unit *at a drive-in eatery with the compressor under the eaves and both the oilheating and cooling suspended from the ceiling of a small supply room. Last year he did a dozen complete cooling jobs.*

Action gets Results

Standards Bureau approves cumulative Meters; highlights Need to calculate Tenths

by
T. E. Carson

IN THE JUNE ISSUE the writer submitted an article which was published under the heading "Need for Action." Condensed, this article pointed out the singular and peculiar condition which has existed throughout the country with regard to the use of both roll-back and cumulative type meters and recorders.

The Handbook 44-2d issued by the Federal Bureau of Standards, in conjunction with the National Conference on Weights and Measures, did not legalize the use of cumulative meters and recorders, despite the fact that many thousands of these meters and recorders are in use throughout the country. From what information I have been able to gather, there are laws on the statute books of 26 States stipulating that the regulation or code known as Handbook 44-2d organized by the Bureau of Standards shall automatically become the guiding regulation on Weights and Measures in each of these States.

This whole question came abruptly to light in 1956 when the State of Virginia gave notice through its Director of Weights and Measures to all fueloil dealers doing business in Virginia that only roll-back meters and recorders could be used. Naturally, the dealers doing business in Virginia from neighboring States, such as Maryland and the District of Columbia, were vitally affected, since the majority of these dealers were using the cumulative type meters and recorders.

Recognizing the seriousness of this situation, a combined industry committee, consisting of representatives from the American Petroleum Institute, the Oil-Heat Institute of America, the National Oil Jobbers Council and the Meter Manufacturers Association under the Chairmanship of K. W. Birkin, appeared before the Committee on Specifications and Tolerances of the National Conference on Weights and Measures, Sunday, June 2, 1957.

This committee presented a solid industry appeal for an amendment to Handbook 44-2d, which would authorize the optional use of either roll-back or cumulative type meters. The Committee on Specifications and Tolerances recommended to the Convention that the foregoing amendment be adopted, and the Convention adopted the Amendment on Thursday, June 6, 1957.

We also have been informed that the Director of Weights and Measures in the State of Virginia promptly agreed to abide by this amendment to the Handbook. This clarifies the situation throughout the entire country, and at the same time relieves the industry of the possibility of being forced to scrap cumulative type meters at tremendous expense. This was a very happy conclusion to an awkward situation and was brought about through the sheer force of good logic backed up with the support of every segment of the industry.

With this troublesome phase of the matter out of the way, the next question which presents itself has to do with the printing of delivery tickets showing the actual deliveries down to the tenth of a gallon.

At the Oil-Heat Institute Convention in Boston, I conducted one of the round table discussions on Fueloil Management, which discussion occupied 3 hours, with a different group presenting itself at the expiration of each hour. There were approximately 120 dealers who took part in this particular round table discussion. One of the subjects discussed at quite some length had to do with the question of meters and recorders and the calculative difficulties when the driver is compelled to completely price the delivery ticket.

Inquiry among these men clearly established that there is considerable misunderstanding with regard to the requirement of printing tenths, and also the fact that many companies were unwittingly laying themselves open to criticism and legal involvement because of technical overcharging.

Information was disclosed that some of the companies were printing in the tenths, and in order to minimize calculative problem with the driver, they charged for the next highest gallon in the event 5/10 or more showed on the ticket. If the tenths shown fell below 5/10 of a gallon, the driver ignored the tenths and charged for the lower gallon.

The Director of Weights and Measures in any jurisdiction is not permitted to allow the consumer to be charged a fraction of a cent more than the actual charge for the delivery calculated down to the tenths. The dealer is legally able to waive the charging of the tenths, but he is not permitted to charge beyond the quantity shown on the ticket.

In other cases, we found that dealers had eliminated the tenths digit, with the result that the tenths were not shown on the delivery ticket, thereby violating the provisions of Handbook 44-2d. While this method is morally sound, since it averages out with no added income to the seller, yet technically it means a consumer

Co-ordinated oilheating industry action resulted in a June 6 ruling by the Bureau of Standards accepting an amendment to Handbook 44-2d approving optional use of cumulative or roll-back meters for fueloil deliveries. Tom Carson reports this and then explores the requirement for showing exact gallonage delivered down to tenths and the further necessity to calculate charges for tenths of gallons on delivery tickets.

on one occasion is slightly overcharged at the expense of another consumer, even though each consumer may well average out in the course of a season equitably.

In any event, this practice of eliminating the tenths is frowned upon and should be discontinued wherever in practice, since it might invite criticism of a decidedly unfavorable nature.

Therefore, now that both roll-back and cumulative type meters and recorders are legitimate and optional for use our industry must show the full delivery down to the tenths. Also, the dealer is entitled to recover for the full price of the delivery, including the tenths. The business of waiving the tenths can incur unnecessary and sizable loss to the dealer, dependent upon the size of the business.

Simplifying Methods

The average tenths for each delivery are 4½ and this means an average loss of between 7¢ and 8¢ for delivery, in the event the dealer elects to waive the charge. Some dealers have felt that the 7¢ or 8¢ per delivery is well offset by the driver's time and the idle truck time, which the driver would consume in making the computation. Assume, for instance, a driver making a delivery with no price charts or anything else of a precalculative nature of 183.9 gallons at 15.7¢ per gallon, plus 2% State retail sales tax. Under such circumstances, it can be readily understood why some of the companies prefer to forego the calculation of the tenths of gallons.

The object of this article is to emphasize that the dealer must show the delivery of fueloil down to the tenth of a gallon, and at the same time, he is entitled to receive full compensation, including these same tenths. The problem lies in solving the calculative problem with the driver in the field at the time of delivery.

While it is true that many companies do this calculating work in the office, and do not leave tickets with the consumers but mail them the next day after price extension internally, yet there are a number of deliveries on a COD basis which require field calculation, plus the fact that some customers demand a fully completed and priced ticket at the time of delivery.

In order to help with the solving of this calculative burden, a number of the Oil-Heat Institute Chapters prepare price charts, and in territories where this is not the practice, the individual dealers prepare their own price charts for use by the driver. In metropolitan Baltimore, the Oil Heat Association of Maryland prepares the price charts for its membership, a sample of which is shown with this article as Exhibit "A." An examination of this price chart will show that the tenths and their corresponding value are shown at the bottom of said chart. As an example, assuming that the delivery involved is 151.3 gallons and the driver has in his possession the chart shown, then all that is required is to take from the basic chart the amount of 151 gallons ($23.10), add the amount for the 3/10 ($.05) and apply the tax shown opposite 151 gallons ($.47), the total for the delivery then becomes $23.62. A driver in making a COD delivery must of necessity in a great many cases make change. In so doing, he must go through the elementary arithmetical process of subtraction and addition. There is no greater burden for the driver in making the mathematical calculation in connection with this chart.

I would like to call attention to the only problem of any consequence which confronted the Baltimore organization in connection with the handling of this field calculation, namely, the State Tax computation. The State of Maryland, like a good many other States, insists upon its breakage when the 2% retail sales tax runs over the fraction of a cent. In order to see that the State secured its breakage, we arranged with the Chief Deputy Comptroller of the State of Maryland a formula, which is simple, workable and satisfactory to all concerned.

The formula is simply this. Wherever on the price chart a delivery is made and the tenths fall in between two gallons where the retail sales tax is increased, then the tax used is that applied to the higher gallonage. For instance, if you will examine the chart and the delivery of 153.8 gallons is involved, the tax of $.48 is to be used, which tax is applicable on 154 gallons.

(*Please turn to page 128*)

Effective May 13, 1957

CALCULATION OF NO. 2 FUEL OIL AT 15.30¢ PER GALLON

Gal.	Amt.	Tax	Total	Gal.	Amt.	Tax	Total	Gal.	Amt.	Tax	Total	Gal.	Amt.	Tax	Total
1	.15	.00	.15	40	6.12	.13	6.25	79	12.09	.25	12.34	118	18.05	.37	18.42
2	.31	.00	.31	41	6.27	.13	6.40	80	12.24	.25	12.49	119	18.21	.37	18.58
3	.46	.00	.46	42	6.43	.13	6.56	81	12.39	.25	12.64	120	18.36	.37	18.73
4	.61	.02	.63	43	6.58	.14	6.72	82	12.55	.26	12.81	121	18.51	.38	18.89
5	.77	.02	.79	44	6.73	.14	6.87	83	12.70	.26	12.96	122	18.67	.38	19.05
6	.92	.02	.94	45	6.89	.14	7.03	84	12.85	.26	13.11	123	18.82	.38	19.20
7	1.07	.03	1.10	46	7.04	.15	7.19	85	13.01	.27	13.28	124	18.97	.38	19.35
8	1.22	.03	1.25	47	7.19	.15	7.34	86	13.16	.27	13.43	125	19.13	.39	19.52
9	1.38	.03	1.41	48	7.34	.15	7.49	87	13.31	.27	13.58	126	19.28	.39	19.67
10	1.53	.04	1.57	49	7.50	.15	7.65	88	13.46	.27	13.73	127	19.43	.39	19.82
11	1.68	.04	1.72	50	7.65	.16	7.81	89	13.62	.28	13.90	128	19.58	.40	19.98
12	1.84	.04	1.88	51	7.80	.16	7.96	90	13.77	.28	14.05	129	19.74	.40	20.14
13	1.99	.04	2.03	52	7.96	.16	8.12	91	13.92	.28	14.20	130	19.89	.40	20.29
14	2.14	.05	2.19	53	8.11	.17	8.28	92	14.08	.29	14.37	131	20.04	.41	20.45
15	2.30	.05	2.35	54	8.26	.17	8.43	93	14.23	.29	14.52	132	20.20	.41	20.61
16	2.45	.05	2.50	55	8.42	.17	8.59	94	14.38	.29	14.67	133	20.35	.41	20.76
17	2.60	.06	2.66	56	8.57	.18	8.75	95	14.54	.30	14.84	134	20.50	.41	20.91
18	2.75	.06	2.81	57	8.72	.18	8.90	96	14.69	.30	14.99	135	20.66	.42	21.08
19	2.91	.06	2.97	58	8.87	.18	9.05	97	14.84	.30	15.14	136	20.81	.42	21.23
20	3.06	.07	3.13	59	9.03	.19	9.22	98	14.99	.30	15.29	137	20.96	.42	21.38
21	3.21	.07	3.28	60	9.18	.19	9.37	99	15.15	.31	15.46	138	21.11	.43	21.54
22	3.37	.07	3.44	61	9.33	.19	9.52	100	15.30	.31	15.61	139	21.27	.43	21.70
23	3.52	.08	3.60	62	9.49	.19	9.68	101	15.45	.31	15.76	140	21.42	.43	21.85
24	3.67	.08	3.75	63	9.64	.20	9.84	102	15.61	.32	15.93	141	21.57	.44	22.01
25	3.83	.08	3.91	64	9.79	.20	9.99	103	15.76	.32	16.08	142	21.73	.44	22.17
26	3.98	.08	4.06	65	9.95	.20	10.15	104	15.91	.32	16.23	143	21.88	.44	22.32
27	4.13	.09	4.22	66	10.10	.21	10.31	105	16.07	.33	16.40	144	22.03	.45	22.48
28	4.28	.09	4.37	67	10.25	.21	10.46	106	16.22	.33	16.55	145	22.19	.45	22.64
29	4.44	.09	4.53	68	10.40	.21	10.61	107	16.37	.33	16.70	146	22.34	.45	22.79
30	4.59	.10	4.69	69	10.56	.22	10.78	108	16.52	.34	16.86	147	22.49	.45	22.94
31	4.74	.10	4.84	70	10.71	.22	10.93	109	16.68	.34	17.02	148	22.64	.46	23.10
32	4.90	.10	5.00	71	10.86	.22	11.08	110	16.83	.34	17.17	149	22.80	.46	23.26
33	5.05	.11	5.16	72	11.02	.23	11.25	111	16.98	.34	17.32	150	22.95	.46	23.41
34	5.20	.11	5.31	73	11.17	.23	11.40	112	17.14	.35	17.49	151	23.10	.47	23.57
35	5.36	.11	5.47	74	11.32	.23	11.55	113	17.29	.35	17.64	152	23.26	.47	23.73
36	5.51	.12	5.63	75	11.48	.23	11.71	114	17.44	.35	17.79	153	23.41	.47	23.88
37	5.66	.12	5.78	76	11.63	.24	11.87	115	17.60	.36	17.96	154	23.56	.48	24.04
38	5.81	.12	5.93	77	11.78	.24	12.02	116	17.75	.36	18.11	155	23.72	.48	24.20
39	5.97	.12	6.09	78	11.93	.24	12.17	117	17.90	.36	18.26	156	23.87	.48	24.35

TENTHS CALCULATION—MINUS TAX

Gal.	Amt.	Gal.	Amt.	Gal.	Amt.
.1	.02	.4	.06	.7	.11
.2	.03	.5	.08	.8	.12
.3	.05	.6	.09	.9	.14

Price chart *prepared by OHA of Maryland, including calculations for tenths of gallons. The reverse side of the chart continues up to 1,500 gallons and repeats the calculations for tenths so that the fueloil truck driver does not have to turn over the chart to make this computation.*

North Carolina hears Panel on Equipment Sales, Promotion

FOR FUELOIL MEN the principal point of study at the spring convention of North Carolina Oil Jobbers Association was the group discussion on fueloil problems now current in the state. The meeting at Pinehurst in mid-May filled the huge Carolina Hotel.

The members of the fueloil discussion panel are shown in the photograph and identified by their connections.

Gray, as moderator opened the discussion by pointing out that the state grows in importance to the oilheating industry at a rate considerably above the national average, partly due to fast rising living standards of the South in general . . . also to the increasing activity in equipment selling by oil men who now realize that distillate fuel is their most profitable major product.

He spoke highly of the cooperative advertising campaign in the Piedmont counties under the able chairmanship of Joe Berry and mentioned that another similar project is in preparation for a dozen eastern counties where tobacco curing is a big consuming feature of the oil market.

The first panelist to speak was Field who explored the growth of kerosene or No. 1 fueloil in the state. He recognized that in some ways this is more vulnerable to gas competition in the cities than is the heavier furnace oil.

The reason for this is the lower ratio of automatic deliveries and service responsibility assumed by the oil men toward this group of users.

Kerosene is the primary heating fuel in North Carolina, with only one other state, Massachusetts, having higher annual consumption. The Bureau of Mines shows for 1955 that kerosene and No. 1 oil usage in North Carolina was 8,789,000 bbls., which compares with 4,062,000 bbls. of No. 2 oil.

The relatively mild climate encourages the use in many small homes of space heaters, floor and wall furnaces.

Cherry took up the subject of oil men selling heating equipment. This is not being done in North Carolina to the extent that it is in colder states. He showed that equipment selling does require making an investment in stock and personnel but he believes it's the best way to get new oil business.

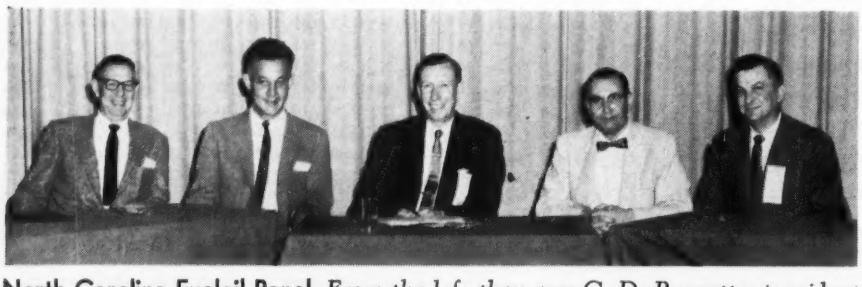
"The customer knows you and would like to get burner service from you," he said, "and the fact that you simply have good oil products and delivered effectively is not enough. Under those conditions how is the jobber or distributor any more attractive to the account than the one-truck peddler?"

The complete oilheating outfit, selling and servicing equipment as well as oil, can often bring in oil gallonage from others who don't take the full responsibility, in Cherry's opinion.

The major suppliers can fit into this picture by sending specialists to help the fueloil man get started and by holding company schools for their servicemen.

Burnette talked about tobacco curing. Twenty years ago it was all done with wood. Oil got started here in 1940. Less than one per cent of the state's tobacco barns are now curing with coal or wood, so there's not much conversion business left. Today it's a question of getting the new barns, and with a 20% acreage cut for 1957

(Please turn to page 132)



North Carolina Fueloil Panel. *From the left they are: C. D. Burnette, president, Burnette Oil Co., Mt. Olive, N. C., Joe L. Berry, secretary, Berry Coal & Oil Co., Greensboro, N. C., Robert Gray,* FUELOIL & OIL HEAT, *New York, Marshall Field, Southern Division Manager, Hartol Petroleum Corp., Richmond, Va., and C. Q. Cherry, senior assistant division manager, Phillips Petroleum Co., Raleigh.*

Oil Heat Promotional Example. *At the Home Show in Charlotte this spring the North Carolina Oil Heat Council had this display featuring the serving of marshmallows toasted over an oil flame.*

Bedford Springs discussion group. *From the left, William Briggs, pres., Valley Oil Co., Middletown, Conn., Robert Gray, editor* FUELOIL & OIL HEAT, *New York, T. R. Loizeaux, president of the company of the same name, Plainfield, New Jersey, T. A. Crawford, marketing director, York-Shipley, Inc., York, Pa., and moderator of the panel, and Charles E. Feinberg, president, Argo Oil Co., Detroit.*

Al Crawford steers Discussion at Pennsylvania fueloil Panel

IN PUTTING together a fueloil panel for the May convention of the Pennsylvania Petroleum Association at Bedford Springs, T. A. Crawford, keynoter and moderator, called on four outside states. In the apparent belief that a prophet only has honor away from home, Crawford brought in from Connecticut, New Jersey, Michigan and New York the four individuals shown in the accompanying photograph.

In his opening presentation Crawford traced the build-up of fueloil and oilheating to the present point of having nine million home users and 700,000 commercial accounts. These consume 350 million barrels of distillates and 90 million barrels of residual fuels, he pointed out.

In the industry's first 20 years it gained 125,000 users a year, but since World War II the pace has been 600,000 new oil customers each season. It is his belief that the present plateau can be maintained but not accelerated much.

Oil was aggressively pushing when it competed with coal, less so now. Gas, now doing more driving, had to start with losses. In Chicago the early gas burner sales had higher sales costs than the full selling price of the jobs.

Automatic heat is now 100% accepted; just which kind will you have? The new home buyer pays little attention.

To the oil man, the burner user stays put, doesn't split his business, you lose him only if badly served. He buys his oil in five barrel lots, his gasoline in five gallon lots.

Speaking of competition in the various categories of installations, Crawford urged that oilheating men

(*Please turn to page* 130)

Booth at Better Living Exposition shared by seven oilheating Groups

SEVEN ASSOCIATIONS devoted to oilheating combined talents and money to demonstrate the values of oil heat during the Showcase for Better Living Exposition in New York's Coliseum, May 4-12.

The groups cooperating in the sponsorship of the booth were Oil Heat Institute of Long Island, New York Oil Heating Association, Better Heat with Oil Council, Oil Heat Council of New Jersey, Westchester Oil Trades Association, Bronx Oil Trades Association and the Oil-Heat Institute of America.

The first public demonstration of an oilfired heat pump central year-round airconditioning unit was held at the booth. The unit developed by Servel and Esso was operated all day during the show.

A continuous fire, operated by a low pressure burner, was maintained at the exhibition. To demonstrate the cleanliness of oilheating, marshmallows were toasted over the flame and given to visitors attending. The burner, adequate for heating a ten-room house, proved sensitive enough to toast the marshmallow evenly without burning. Models in attendance at the booth toasted and gave away close to 50,000 marshmallows.

ONLY OIL HEAT IS SO
CLEAN
A fuel's cleanliness is determined by how completely it burns. No fuel burns more completely than oil!
SAFE
Oil gives you quiet, dependable automatic heat without danger of fumes or accidental igniting!
THRIFTY
In the New York Metropolitan area, Oil can save you as much as 30% compared with the next most popular automatic fuel.
LOOK FOR THESE EMBLEMS

OHI designs work Kit to aid Chapters in chimney Campaign

A WORKING KIT to serve as a guide for action by local chapters interested in promoting the use of safe all-purpose chimneys has been readied for distribution by the Oil-Heat Institute of America, New York.

The kit is designed as a pattern and program aid to stimulate local communities to outlaw the use of Type B gas vents. Recognizing that local conditions will often call for a wide variation of plans and stretegy the kit acknowledges that some of the material can be used as written, some of it will have to be altered.

This is a part of a national public relations effort conducted by OHI to make the buying and building public "chimney-conscious." On a national level articles are being submitted to the shelter magazine and to newspaper syndicates which supply the bulk of the feature material subscribed to by the daily and weekly press.

Community Program

First, the kit suggests a plan for a community program seeking enactment of an ordinance requiring all-purpose chimneys. This plan outlines the steps necessary and indicates the groups who are most important to impress. Support should be gotten from building engineers, local legislative bodies, trade associations, business and professional men, civic and service organizations, womens organizations and individuals. In addition the press, radio and television must be supplied with material for the campaign.

Within the kit is a sample ordinance. However, it is suggested that legal counsel be consulted to see that the local bill is well prepared and is drawn up in proper form for the community. He would also see to it that the ordinance was submitted and introduced in the right way to the town or city council for hearing and enactment into law.

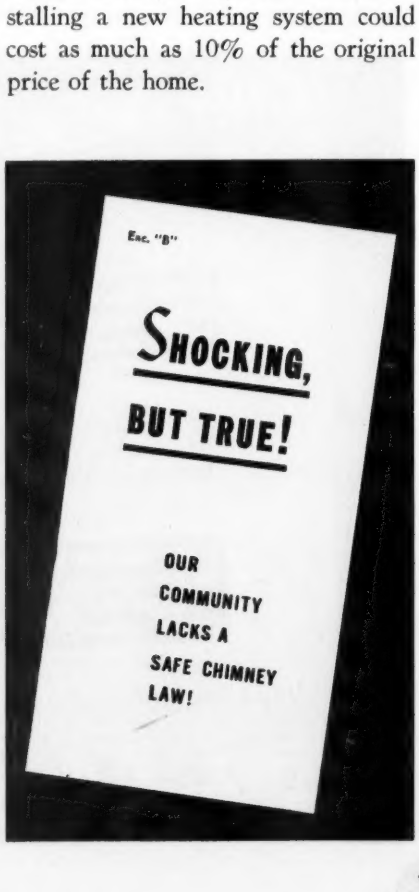
The outline warns that the importance of the building engineer must not be overlooked. If he is convinced, the battle may be half-won. In any event, his attitude determines much of the strategy used by the group.

A booklet has been prepared to circulate throughout the whole community. It carries the headline, "Shocking, but True! Our Community lacks a safe chimney Law!"

The lead-off point in the booklet show a man chained to his heating plant. The individual who has a vent or flue limited to low temperatures must use gas—he has no choice in the selection of fuel.

The booklet lists some of the communities that have become aware of the hazards connected with Type B vents. Among these cities are New York; Camden, N. J.; Raleigh, N. C.; Atlantic City, N. J.; Memphis, Tenn.; and Hamilton. O.

The booklet recognizes that the vast majority of homes using inadequate vents are occupied by people of limited incomes. Therefore, these homeowners are captive gas customers unable to switch fuels should their gas bills become burdensome. According to builders, replacing the vent and installing a new heating system could cost as much as 10% of the original price of the home.



Among the dangers inherent in the Type B flue the most important is that the homeowner may try to hook up some other type heater or appliance to his chimney that is sized only to handle the gas furnace, says the booklet. It also emphasizes that a house built with this type of chimney may not be a good financial risk. "A mortgage on such a house becomes, for all practical purposes, a second mortgage . . . with the fuel supplier enjoying first call on the homeowner's funds."

To finalize its argument the little yellow booklet stresses that this situation is a community responsibility. Natural gas economics are constantly subject to national and state legislation and judicial decisions, which tend to diminish supplies, and raise rates.

Therefore, "if a homeowner does not have an all-purpose chimney he is indeed captive to the gas industry and is the possessor of a vent which is potentially unsafe."

Booklet available

These phamplets are available from OHI at $85 per thousand, and the kit contains covering letters to be sent to local officials and departments. Different letters have been designed for businessmen, civic organizations and women's groups.

Samples of "letters to the editor" are included in the kit.

There are also press releases for newspapers, radio and television media. The kit also suggests other means of getting radio or television time—panel shows are particularly effective.

When such a campaign is undertaken by a local association the detail of following it through is voluminous so that this kit is particularly valuable in offering suggestions.

On the committee for the advancement of safety in chimneys are the following members of OHI: Joseph Collins, chairman; J. Hollis B. Albert; Robert Barr; Thomas Campbell; Robert Crane; Frederick Heaney; William F. Kenny, Jr.; Charles Krumenacker; Timothy Loizeaux, Sr.; and Nathan Pierce.

And they have done a fine job in preparing this kit for use by local chapters of the national organization.

Oilheating Week in Boston

Oil-Heat Institute Convention and Eastern Exposition attract record Crowds

RECORD BREAKING attendance marked the annual meeting of the Oil-Heat Institute of America and the 1957 Biennial Eastern Exposition of Oil Heat and Domestic Cooling, held in Boston during the week of June 3.

The Exposition at the Hotel Statler attracted more visitors than previous shows in this series—a total of 5,625 industry people registered and received a badge for admittance to the exhibits. Manufacturer displays were located on the mezzanine floor of the hotel, readily accessible to the many industry people registered there.

Once again the Exposition was notable in that it provided an excellent setting for the 120 displays of oilheating, fueloil and airconditioning equipment; the plush, carpeted ballroom and smaller rooms on the mezzanine floor of the hotel presented a most effective background for this compact, concentrated collection of oilheating display booths.

Fred N. Beckwith, manager of the Exposition, which is sponsored by the Oil Heat Institute of New England, pointed out that the high attendance was achieved because the show attracted dealers from all over the United States, along with some registrants from Canada and abroad. A particularly large registration was noted from New York, New Jersey, Illinois, Michigan and Iowa.

The group already is planning the next Exposition, scheduled to begin in Boston on June 2, 1959.

Oil-Heat Institute of America held its 35th annual convention at the Sheraton-Plaza Hotel concurrently with the Eastern Exposition, beginning on June 3 with meetings of the retiring boards of directors, the Divisions and finally the annual meeting of the Institute, where a new board was elected. (See accompanying list.) Members then met in the evening and selected these officers for the coming year:

J. V. Resek, manager, Burner Div., Cleaver-Brooks Co., Milwaukee, Wis., was named president. G. M. Marin, Sun-Ray Burner Mfg. Corp., Jamaica, N. Y.; Stanley Czarnecki, Eddington Metal Specialty Co., Eddington, Pa. and J. Hollis B. Albert, Oil Heat Association of Maryland, Baltimore, were named vice-presidents. Albert's election marks the first time that a vice-president was designated to represent the Distribution Division.

The Executive Committee of the Institute consists of: Paul K. Addams, Fitzgibbons Boiler Co., New York; Fred Heaney, New York Oil Heating Association, New York; R. F. Hertel, Home Htg. & Cooling Dept., General Electric Co., Tyler, Texas; G. E. Hochstein, The Heil Co., Milwaukee, Wis.; F. M. Jordan, Timken Silent Automatic Div., Scaife Co., Oakmont, Pa.; C. W. Lang, Sundstrand Machine Tool Co., Rockford, Ill.; T. R. Loizeaux, Union County Fuel Oil Dealers Association, Plainfield, N. J.; Robert Lucas, Toridheet Division, Cleveland; L. D. Sibley, Electronics Corp. of America, Cambridge, Mass.

Then chairmen of various divisions were named:

F. M. Jordan, Timken Silent Automatic Div., chairman of Manufacturer Div. and also chairman of the Domestic Manufacturer Section. J. M. Gleason, Williams Div., vice-chairman, Manufacturer Div.

J. W. Cowan, Ace Eng. Co., chairman of Commercial-Industrial Section, Manufacturer Div.

C. W. Lang, Sundstrand Hydraulic Div., chairman of Accessory Div. and also chairman of the Domestic Manufacturer Section. L. D. Sibley, Electronics Corp., vice-chairman of Accessory Div. and also chairman of the Commercial-Industrial Accessory Section.

Robert Gilmartin, Gulf Oil Co., chairman of Technical Div. and D. W. Locklin, Timken Silent Automatic Div., vice-chairman, Technical Div.

In the Distribution Division, Fred Heaney, New York Oilheating Association, was re-elected national chairman. Also named were T. Loizeaux, Sr., Union County Oil Heat Association, vice-chairman for the East; W. Raith, Oil Heat Institute of St. Louis, vice-chairman for the Midwest and H. Auld, Oil Heat Institute of Oregon, vice-chairman for the Far West. These men, along with the others listed as members of the Distribution Division board of directors form the executive committee.

Fred Beckwith reported at the Institute annual meeting as chairman of the Insurance Trust, revealing that

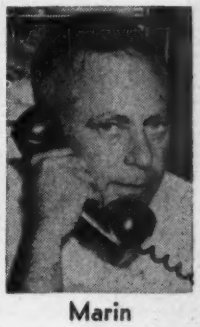
DIVISION CHAIRMEN

Lang
Accessory Div.

Heaney
Distribution Div.

OHI OFFICERS

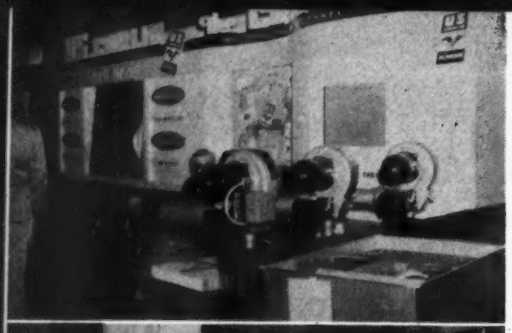
Resek

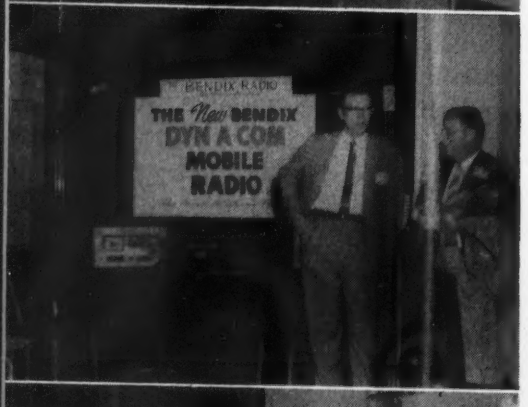


Marin

Czarnecki

Albert





Board of Directors
Oil-Heat Institute of America, Inc.
Elected at annual Meeting, June 3, 1957

MANUFACTURER DIVISION

Paul K. Addams, Fitzgibbons Boiler Co., Inc., New York, N. Y.
Walter E. Blake, Heating & Air Cond. Div., Stewart-Warner Corp., Lebanon, Ind.
Wm. Bohn, Preferred Utilities Mfg. Corp., New York, N. Y.
Frank Brophy, Burnham Corp., Irvington, New York
J. W. Cowan, Ace Engineering Co., Chicago, Ill.
Lewis J. Cox, Iron Fireman Mfg. Co., Cleveland, Ohio
R. S. Doherty, National-U. S. Radiator Co., Johnstown, Pa.
William Gaskell, Bryant Mfg. Co., Indianapolis, Ind.
R. B. Gilbert, Rheem Manufacturing Co., Chicago, Ill.
J. M. Gleason, Eureka Williams Corp., Bloomington, Ill.
Rupert H. Gustafson, Sundstrand Engineering Co., Rockford, Ill.
R. F. Hertel, Home Heating & Cooling Dept., General Electric Co., Tyler, Texas
G. E. Hochstein, Heating & Cooling Div., The Heil Co., Milwaukee, Wisc.
Dan E. Johnson, S. T. Johnson Co., Oakland, California
F. Milton Jordan, Timken Silent Automatic Div., Scaife Co., Oakmont, Pa.
W. F. Klockau, The Nu-Way Corp., Rock Island, Ill.
Robert Lucas, Toridheet Div., Cleveland Steel Products Co., Cleveland, Ohio
G. M. Marin, Sun-Ray Burner Mfg. Corp., Jamaica, N. Y.
D. C. Patten, J. V. Patten Co., Sycamore, Ill.
J. V. Resek, Cleaver-Brooks Co., Milwaukee, Wisconsin
H. W. Shirey, Combustioneer Div., Steel Products Eng. Co., Springfield, Ohio
P. M. Stephenson, Aldrich Co., Wyoming, Ill.
Russell C. Westover, Jr., Ray Oil Burner Co., San Francisco, Calif.

ACCESSORY DIVISION

P. G. Crewe, Webster Electric Co., Racine, Wisc.
Stanley Czarnecki, Eddington Metal Specialty Co., Eddington, Pa.
Robert Gray, FUELOIL & OIL HEAT, New York, N. Y.
C. L. Hastings, Rochester Mfg. Co., Rochester, N. Y.
C. W. Lang, Hydraulic Div., Sundstrand Mach. Tool Co., Rockford, Ill.
E. N. McDonnell, McDonnell & Miller, Inc., Chicago, Ill.
David T. Morgenthaler, Delavan Mfg. Co., W. Des Moines, Iowa
J. W. Owens, The Mercoid Corp., Chicago, Ill.
Charles Rapiport, Union Electric & Mfg. Co., Jersey City 7, N. J.
Dudley B. Robinson, Torrington Mfg. Co., Torrington, Conn.
Frank P. Scully, Scully Signal Company, Melrose, Mass.
Larry D. Sibley, Comb. Control Div., Electronics Corp. of Amer., Cambridge, Mass.

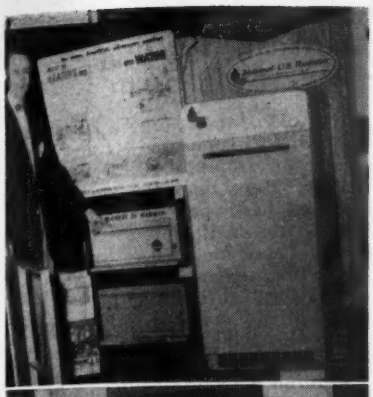
DISTRIBUTION DIVISION

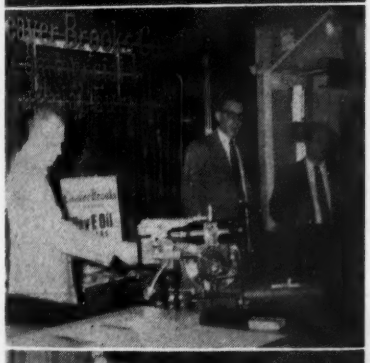
J. Hollis B. Albert, Oil Heat Assn. of Maryland, Baltimore, Maryland
Henry Auld, Jr., Oil Heat Institute of Oregon, Portland, Oregon
Joseph Berry, North Carolina Oil Jobbers Assoc., Raleigh, North Carolina
Harry Daugherty, Tennessee Oil Men's Assoc., Nashville, Tennessee
C. Everett Elliott, Oil Heat Institute of New England, Boston, Mass.
Fred Griffin, Oil Heat Institute of Washington, Seattle, Washington
Fred Heaney, New York Oil Heating Association, New York, N. Y.
T. R. Loizeaux, Union County (N. J.) Fuel Oil Dealers Assoc., Plainfield, N. J.
Stewart S. Pirie, Oil Heat Institute of Detroit, Detroit, Michigan
Wm. Raith, Oil Heat Institute of St. Louis, St. Louis, Missouri
Ralph Rudolph, Oil Heat Institute of So. Idaho, Boise, Idaho
Marvel Wilson, Greater Philadelphia Fuel Conference, Philadelphia, Penna.

the Trust has accumulated a reserve of $39,000. This is reflected in increased coverage under the general plan extending insurance to 1,369 employees with a total coverage of $3,800,000, a jump of $700,000 during the past year. Under the executive plan Beckwith reported 915 individuals covered to the extent of $8,637,000, a $150,000 increase. He also told about added coverage under hospitalization insurance to include doctor's visits to the hospital, with no increase in premiums. There are 858 employees on the hospital plan.

At the conclusion of his report Beckwich resigned as chairman, another step in his gradual withdrawal from Institute activity. Al Hegeman, one of Wisconsin, became chairman to replace him.

George Hochstein rendering his final report as president analyzed 1956 as a generally good year for automatic heating and attributed much of the decrease in oilheating sales so far this year to a disregard of the necessity to do a selling job. He cited particularly the opportunities that exist for modernization and replacement jobs and





strongly recommended that "we take advantage of the potential for oilheating sales in these areas."

New equipment available today, he continued, is vastly superior to that offered even ten years ago and the industry generally "has a lot to sell." "This year may be a tough one," Hochstein surmised, "but the future promises much. It is up to each of us to work harder today to eliminate low-grade installations and service Let's sell quality, not price."

He concluded with an expression of appreciation to the chairman and members of the Divisions, Sections and committees and the Institute staff for their loyal support and cooperation during his term of office, and characterized any accomplishments as contributions to the betterment of all in the industry.

Fred Heaney reported as national chairman, Distribution Division, commenting particularly on the success of the management conferences sponsored by the Division. He recounted the acceptance accorded the service strip films provided by the Accessory Division, on the sale of which the Distribution Division has realized a profit of $2,200.

Heaney briefly told of other activities of the Division: The addition of eight new Chapters during the last year and a half, including the Fuel Oil Dealers Association of Chester, Pa., welcomed as the 65th Distribution Division Chapter;

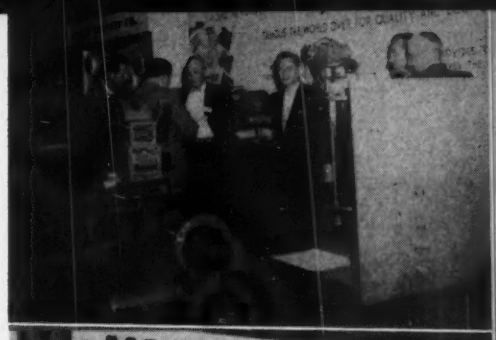
The publication of a brochure, "Join the marketing Family," to solicit Division members;

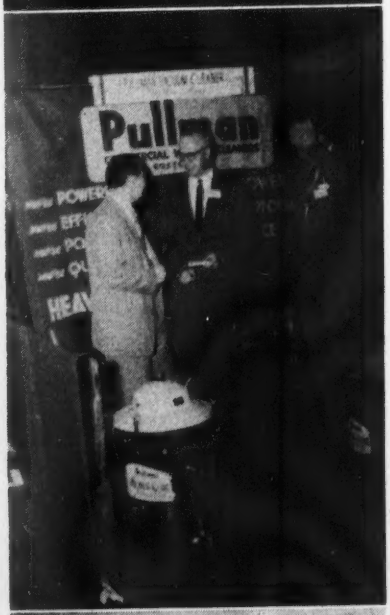
A kit for local committees to use to secure enactment of ordinances to require all-purpose chimneys instead of Type B flues;

The sale of publications and calendars that netted a profit of $3,600 during the past year;

Doubling the sale of promotional materials from the Treasury of Advertising, increasing profits to $3,200.

The combined Commercial-Industrial Sections also met during the convention, with Larry Sibley presiding. A topic of particular interest discussed concerned the variation between installation standards required by the various offices of the Factory Insurance Association throughout the coun-





try. Two representatives of FIA present outlined the tentative commercial-industrial oilburning standards now used.

The OHI Engineering Committee was empowered to review these standards and make suitable suggestions to FIA as to the practicability of their being adhered to in the field. The objective is to eliminate confusion as to what types of accessories are suitable and necessary for preferred insurance risk installations.

At the dinner meeting of the new Board of Directors the first action was the reappointment of the principal members of the staff. Ralph Becker was renamed managing director, David Bottrell technical secretary, Charles Burkhardt secretary Distribution Div., Charles Pesterfield secretary of the Commercial - Industrial Div., and George Gruberg as attorney.

There followed a fairly long discussion of the proposed OHI-UL certification plan for oilheating products and installations. This is explained in detail in another section of this issue. The main point here is that the Board voted its approval in principle.

In a financial report, Becker showed dues income for the last fiscal year from manufacturers of $41,000, from the Distribution Div. $18,000. The income from the biennial national exposition last June was $82,000, half of which is available in each year for the OHI budget, making the total annual income available just above $100,000.

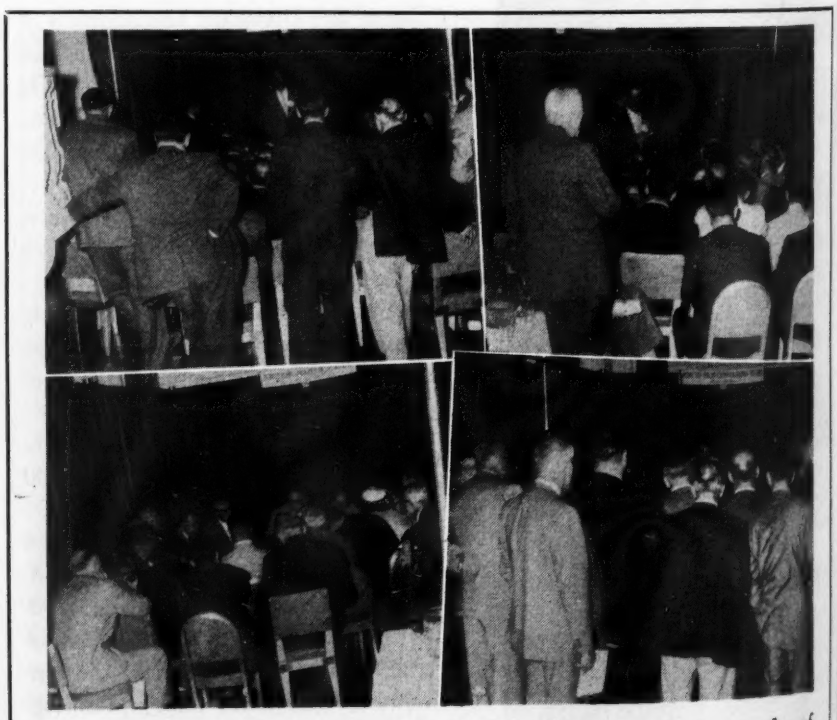
(*Please turn to page* 134)

Technical Division Symposium

ON TUESDAY, June 4, the Technical Division of OHI sponsored its first Symposium on Domestic Oilheating and Cooling. More than 300 attended to hear and participate in open discussion of the half dozen topics presented. These included:

- **"Heating oil Quality" by R. P. Gilmartin, Gulf Oil Co.**
- **"Handling and Use of domestic heating Oil" by E. W. Cole, Texas Co.**
- **"Oilfired Airconditioning" by R. W. Sage, Esso Research & Eng. Co.**
- **"Weathertrix" by D. H. Bottrill, Oil-Heat Institute of America.**
- **"Pulsation in oilfired Equipment" by A. A. Putnam, Batelle Memorial Institute.**
- **"Technical Side of good burner Servicing" by T. R. Loizeaux, T. R. Loizeaux Fuel Co.**
- **"Field Testing of improved home heating Equipment" by R. L. Weeks, Esso Research & Eng. Co.**

There was much excellent material in these presentations and condensations of pertinent information will be published in early issues.



Round table *dealer management conferences (some typical examples of which are shown above) took place on June 5 and 6 during the* OHI *Convention in Boston. All 66 booths provided for discussion of a variety of topics of interest to oilheating dealers were well attended; at one time a peak attendance of more than 600 dealer personnel was reached.*

Did Oilheating come, to pass?

Is it just another Cog in the Wheel of Progress or is it deep rooted?

by
Robert Gray*

THE OILHEATING INDUSTRY has reached a milestone this year in its progress. This is its 35th birthday.

For all practical purposes it was in 1922 that the domestic oilheating industry was born. That was the year of the big breakthrough. Instead of selling just a handful of burners, like the first experimental years had seen, we then reached the impressive level of 35,000 installations.

That was the year of the first oilheating magazine, started by a man who was betting $500 that this was going to become an industry. By the following spring there came the first trade meeting, the old American Association of Oil Burner Manufacturers. Again it was started on future vision, with very little cash and no backlog of business by today's standards.

Early Years

Some of you have heard the stories of the early years a number of times. They have little to do with today's thinking, today's needs, with today's opportunities. At the same time they will show you that our industry has deep roots, it's been through the mill, it is not a flash in the pan.

The 35 years have seen a lot of ups and downs, a lot of successes and failures, some gloom and a lot of enthusiasm. Every time we took a serious dip in our sales . . . like we did in the depression of the '30's, then during the World War and more recently in 1948 . . . we came back right away to higher levels.

Will we always be able to do that? Probably not to the same degree, but on the other hand there is not much reason to expect such serious dips.

I am glad for this chance to express one man's viewpoint on an attitude that I have seen creeping into some phases of our conversations . . . an attitude that is distinctly unhealthy and I suspect totally unwarranted.

One day last month a good friend who has built up something over 20 million gallons of retail fueloil business told me that he doubted the wisdom of taking his sons into the business. He didn't think it had enough of a future. Of course it was a shock, coming from him. But then I got to thinking about what I knew of this man's background.

Generation of Coal Men

He comes from generations of retail coal men. His company fought oil for years, and then joined up with it. It's far bigger today in both dollar volume and profits than it ever was in the coal years. Yet this man, and some others like him, can't get away from a suspicion that oil, like coal, is just another cog in the wheel of progress toward eventual perfection. To him a period of 40 or 50 years is just the dispensation granted to the oil industry for heating American homes.

Whenever you encounter this attitude, if you will think a minute and look beyond the source, you'll nearly always find that it's held by a man or a family with a coal industry background. Such men have been a big factor in the building up of oilheating as a business. In fact, I'd say that they have been more of a factor, at the retail level, than those companies that came into the fueloil business from a gasoline background. To the coal man a fueloil department was a lifesaver; to the gasoline man it was just another avenue for expansion.

We find this attitude that I've mentioned, or what you might call "Oilheating in transition," particularly prevalent in some of our larger Eastern markets, much less so in the Midwest.

Most of us are only one generation removed from folks who considered coal a wonderful fuel for heating homes. Certainly it was a real improvement over anything earlier. You could hold a fire with it, which you couldn't for long with wood. Then it was a much more concentrated form of Btu.

One of my grandfathers homesteaded on the western prairies just after the Civil War. There was very little wood and not much other desirable fuel out on the buffalo grass but they had some real blizzards. He used to drive all day 40 miles with a team and wagon to the nearest point on the Union Pacific, stay all night in town and next day drive back with two tons of coal—it was precious stuff.

Oil is at least as much better than coal as coal was better than earlier fuels in those pioneer days. That's why it has done such a fine job of bringing to our homes a style of heating with much greater convenience.

So let's concede that up to the era of oilheating each dominant fuel represented progress. At that point I stop. Nothing that's come along yet in any significant volume is better than oil heat.

Electric heat has the advantage of zone control, room by room, but it's still small in impact and its threat to oilheating is pretty remote except in the Northwest. In volume it's where we were 30 years ago.

Gas has Weaknesses

Gas heat has no true advantage over oil; on the contrary it has weaknesses. Is there any reason whatever to believe that gas can significantly displace oil as a heating fuel, on the score of being the next step in the line of progressive improvement? None whatever unless they come up with something better than anything now in sight.

Why then has gas heat grown so fast in the few recent years? Only because its sale was being enthusiastically promoted at several levels, and not because consumers were demanding it for superior performance.

You all know the details. The pipeline promoters discovered that they could sell stocks and bonds quite easily in the years following the war,

*This is a condensation of a talk by the author at the annual industry luncheon, OHI of America at Boston, June 6th.

particularly when the rates were controlled by Government at a comfortable profit point.

Local gas utilities were dragging their tails because their fuel had lost much of its popularity to electricity for cooking and water heating. The possibilities in the promotion of natural gas as something new looked like the answer. With the authority concentrated in very few hands the projects matured and we have the stuff popping up almost everywhere. To show you how low gas has fallen in the esteem of the utility industries, there was a speaker at the Chicago convention of the Edison Electric Institute this spring who quoted the slogan, "Gas was great in '98."

Notice now that in the progression of the fuels up to and including oil, there was at every step a real consumer benefit, not just a promotion to sell stock or to bail out a sinking schooner.

What is Wanted?

Let's take a look at what Mrs. America actually wants in home heating. We have a pretty good idea because we've been doing some consumer interview surveys in some of the cities where our cooperative advertising programs are now going on.

If you ask a housewife or her husband their impressions of various fuels you get quite a variety of answers, depending on a lot of local conditions. But if you don't mention fuels at the start, and simply ask them how they would describe good home heating, or what characteristics they expect in good heating, you get pretty close to their real wants.

What do you suppose rates first? In perfect logic, the first thing they want is comfort . . . how simple, that's what heating is for.

Do any of the fuels have any monopoly on comfort? Certainly not, if the home has automatic heat, well designed and installed, it's comfortable.

The next point begins to make a difference. Their second consideration in desirable heating is convenience. Here we see coal dropping away pretty fast. In fact this is the principal point that licked coal. But is any fuel more convenient than oil?

WHAT THEY WANT IN GOOD HEATING

1. COMFORT
2. CONVENIENCE
3. CLEANLINESS
4. ECONOMY
5. SAFETY

The gas people believe that their pipe system for supply is more convenient and dependable than our "Pipeline on Wheels," our oil truck. With our automatic degree-day deliveries it isn't true. They often remind us that in deep snow and blizzards it's hard for our trucks to get there. Of course that's why we use reserve factors in our automatic delivery methods.

In coldest weather, particularly in old gas heating cities, the very fact that the supply is restricted by the diameter of a pipe is often its undoing. That's one reason why our oilheating sales have been growing faster in the Midwest.

An amusing example came to light this spring in discussing electric heating with a utility executive in Ohio. His system cannot add any more electric heating because it inadvertently gives him too much trouble now. When his city gets real cold gas supply lines can't take it. The homes get chilly, so the owners plug in every kind of electric portable heater they can find. This overloads the lines and often burns out the transformers. Thus electric heating stops, and so, naturally, does any oilheating in the neighborhood. To this man, heating in all forms is a bad word.

So we'll concede nothing to other fuels on the point of convenience.

What's the third point that the citizen thinks of in listing what he or she wants from heating? It's cleanliness. Here we may run into some pressure. If the interviewer should now get specific about fuels, folks are apt to think that electric or gas heat are cleaner than ours. It isn't true, but it's understandable why they should think that way.

Both gas and electricity are invisible, so how could they be dirty? They think of oil as something in a crankcase. Actually, a gas flame starved for air puts out billows of black smoke. Electric heating does considerable wall smudging, not from the current itself but from pinpointing the air movement to a hot spot.

We can be dirty, let's admit it, in some remote spots where there is too little oilheating to have mechanics who understand it, but that's not the competitive area of our business. So we won't concede superior cleanliness to any other fuel, but we will recognize that we have got to do more educating of the public on this item.

Now in fourth place comes an attribute that some of you have thought would be first. That's economy. Economy is clear down to fourth place, and rightly so.

A typical family spends for fuelol and burner service around $250 a season. This is not the small builder home, but it's the average, including the big old ones. In some markets he'll spend more for gas, in some he'll spend less.

Fuel in the Budget

The breadwinner in the home last year earned about $4,500. But because many homes have more than one employed worker, the average income per household was $6,300. The fuel bill came out of that. Oilheating and burner service cost 4% of the income. Suppose that some other fuel had been as much as 25% higher or lower . . . the difference would still be only 1% of the family income.

Mr. and Mrs. America can afford the fuel they want, the fuel that they believe offers the most benefits to them, with cost rated in fourth place. In advertising any fuels we see stress being put on economy. The same is true of a Rolls-Royce automobile. In England they drive them for 20 years and they burn less gas than a Mack truck, so they're economical. Econ-

omy is a nice thing to have in our promotion, but don't depend on it. The public yawns.

Almost no one knows what he pays for his fuel. In two of our markets where we did these consumer interview surveys, fewer than one eighth of the people know what they pay for oil. This was in Baltimore and Niagara Falls. We let them have 4/10th of a cent leeway and called them perfect if they guessed within that range. Less than one out of eight got in the bracket. The others guessed all the way from 7¢ to 30¢ a gallon.

Certainly on the point of economy we neither gain nor lose on an industry-wide basis.

The fifth attribute that people want in their heating is safety.

Without getting into too much harrowing detail, anyone must admit that no fuel is safer than oil. Oil has almost never a casualty from central heating. It's not a major factor, as the public rates it in fifth place, but surely we're top dog here.

Beyond the five qualities that we've described there were several other very minor ones but none of them gave other fuels the benefit. So we have the important list of five in this order; Comfort, Convenience, Cleanliness, Economy and Safety.

Coal lost out in the race because it lacked two main points, convenience and cleanliness . . . and these are mighty important. Is there any single item there that should cause oil to lose out in this so-called parade of progress? Certainly there is not, although on the cleanliness impression we've got to keep selling; we have it —let's prove it.

If we as an industry have no shortcomings in this parade of virtues, as the public understands the virtues of heating, how did another fuel catch up with us? Whether or not we like to admit it, they saw a vacuum and filled it—you might say they almost stuffed it.

We had gone along for nearly 20 years before World War II establishing the fact of automatic heating. It was a long fight but by 1940 we had built up to the point of making over 300,000 installations in a single year.

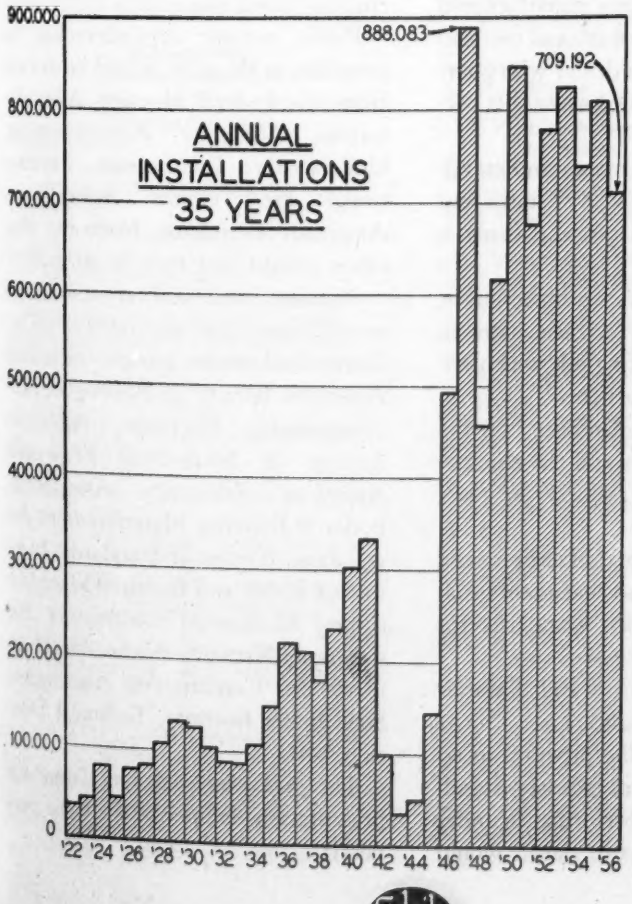
Their promoters saw what we didn't—that after the war the general public would demand automatic heating. They climbed on the bandwagon we had built.

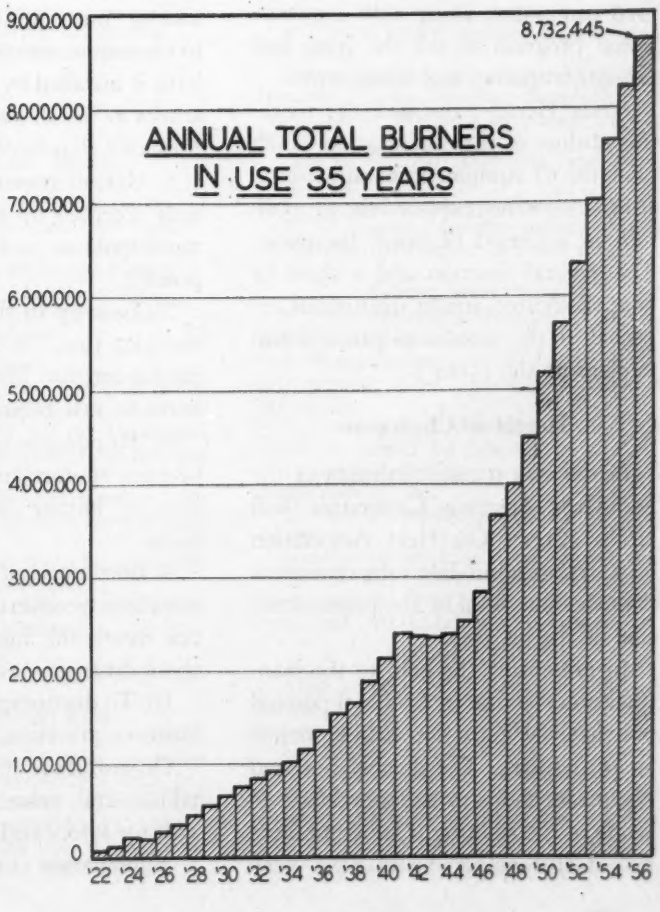
You see we have averaged over 730,000 installations a year since the war; they have done a little more than that, reaching peaks in the past three years. The way things were going we couldn't have handled their load in addition to our own—automatic heat was coming too fast. It almost ran over us in the winter of 1948. There's no question about it; the gas people just filled a vacuum. In the process they got a lot of people liking them.

It is very likely that never again will we have a single-fuel economy. We did with coal, for all practical purposes. Coal actually gave way to oil and gas, which today are parallel.

In the next five years they each should sell a similar number of installations. Gas is having its splurge, using every means to get customers for its present pipeline commitments. But you have noticed, I'm sure, that the heyday of pipeline promotion is past. Nothing important is headed eastward now except the Florida pipe which is due in about two years.

(*Please turn to page* 128)





UL-OHI quality label Plan

Proposal for upgrading Equipment and Installations received favorably at Boston Meeting

AN IMPORTANT SESSION during the 35th annual convention of the Oil-Heat Institute of America in Boston was the Thursday morning, June 6, Domestic Manufacturer Conference.

F. Milton Jordan, Timken Silent Automatic Div., Scaife Co., and chairman of the Domestic Section, Manufacturer Division of OHI, introduced R. F. Hertel, General Electric Co., who outlined a plan for using a combination Underwriters' Laboratories and Oil Heat Institute label on equipment and installations.

He explained that last Fall the Institute's Executive Committee instituted a program of action to unify the oilheating industry and offer the consumer the opportunity to recognize that the industry is represented by an association and that it has standards and ideals.

In short, the plan looks forward to the establishment of standards for the manufacture and performance of oilfired equipment, along with a promotional program to sell the label and its significance to the homeowner.

After Hertel presented the tentative outline of the organization of the plan, the 65 equipment manufacturers at the conference explored the proposition in a period of open discussion. The general reaction and a show of hands indicated almost unanimous approval of the motion to proceed and implement the plan.

Hertel is Chairman

Hertel was named chairman of the Standards Steering Committee and Hollis Albert, Oil Heat Association of Maryland and Institute vice-president, became head of the promotional side of the program.

In presenting the plan to the manufacturers' conference, Hertel pointed out that, "We are not making money as an industry. The domestic oilfired equipment industry is depressed at all levels of distribution. Our equipment manufacturers for years have been able to produce far more product than the market could absorb."

Continuing, Hertel explained that FHA and VA are two agencies who have expressed approval of any attempt at upgrading to offset the difficulties they face from low-grade equipment and installation. The OHI Executive Committee recognized that something could be done about these conditions and formulated the UL-OHI label plan with these objectives in mind:

Aims of the Plan

1. To promote the interests of the industry and the public through better products and better installations.
2. To establish performance requirements and standards for the product.
3. To establish recommended installation practices to assure customer satisfaction.
4. To encourage adherence to performance standards in manufacture and installation.
5. Advertise to the customer the idea of "buy equipment manufactured to the requirements of UL and OHI and have it installed by a dealer who guarantees to install according to OHI performance standards."
6. Get all requirements and standards accepted by FHA, VA, states and municipalities so adequate policing is possible.
7. To keep in the consumers' eyes, the idea that, "it costs little more to have a certified heating job which adheres to OHI requirements."
8. To educate the industry on the benefits of standards and the elimination of buying or selling on price alone.
9. Encourage all manufacturers and installers to advertise that their product meets the highest standards for the industry.
10. To discourage any and all unfair business practices.

Organization of the program to establish and promote industry standards for safety and performance under a combination UL-OHI label would consist of OHI's Executive Committee as governing body, with administration handled by a full-time secretary on the Institute staff.

The Standards Steering Committee, with chairman and vice-chairman and sub-committees on burners; furnace-burners; boiler-burners; direct-fired water heaters and installations, would be assisted by public interest and advisory technical representation.

Also, an Advertising-Promotion Steering Committee would include representatives from manufacturers of oilfired equipment, manufacturers of accessories and components and installers of equipment.

How Plan works

In practice, equipment offered under the plan would be shipped with a combination UL-OHI label and when installation standards are in effect, the installer would affix an additional label, along with a certification as to compliance with the standards and including actual test results.

Public interest representation, as proposed in the plan, would be drawn from the Federal Housing Administration, Veterans Administration, Underwriters Laboratories, International Fire Chiefs Associations, American Petroleum Institute, plus other groups that may be selected.

Advisory technical representation would come from any number of industry and trade groups, including American Society of Heating & Air-Conditioning Engineers, American Society of Mechanical Engineers, American Standards Association, Boiler & Radiator Manufacturers Association, Bureau of Standards, Institute of Boiler and Radiator Manufacturers, Mechanical Contractors Association, National Warm Air Heating & Air Conditioning Association, Steel Boiler Institute, Technical Division, OHI.

The following excerpts from the presentation summarize the basic proposal:

Standards
Steering Committee
Voting Members (12)

1. Chairman—appointed by OHI Executive Committee
2. Vice Chairman—appointed by OHI Executive Committee

Subcommittee Chairmen (appointed by Chairman)

3. Burners
4. Furnace Burners
5. Boiler Burners
6. Water Heaters
7. Installation

Representatives (appointed by Chairman)

8. Accessories
9. Controls
10. Components
11. Installation
12. Installation

Non-Voting Representatives:
Public Interest (5)
Technical Advisory (10)

Subcommittee
Burners

Chairman: A Burner Manufacturer
Membership (10)

Manufacturers
Group A—
Making burners for others
Hi-pressure 2
Making for themselves
Hi-pressure 1
Lo-pressure 1
Vertical rotary 1
Manufacturers of accessories, components, controls covering above 3
Non-voting advisory—one each from:
OHI Technical Division, U.L. 2

Task

Put under one cover the relevant portions of:
UL—296 Oilburners (safety)
CS—75-56 Oilburners (performance)

Plus

OHI smoke requirements and any other tightening deemed necessary

Subcommittee
Furnace-burner Units

Chairman: A Furnace-burner Manufacturer
Membership (16)

Manufacturers
Groups A—
Making complete units 2
Group B—
Make furnaces—buy burners 4
Group C—
Burner manufacturers 2
Manufacturers of accessories, components, controls covering the above 3
Non-voting advisory—one each from:
U.L., NWAHACA, ASHAE, FHA, Technical Division OHI 5

Task

To codify under one cover relevant portions of the following:

1. CS-195-56 — Warm air furnaces equipped with high, low pressure or vertical rotary oilburners.
2. UL-727—Oilfired central furnaces.
3. UL-729—Oilfired floor furnaces.
4. UL-730—Oilfired recessed heaters.
5. UL-731—Oilfired unit heaters.
6. NBFU-90-B — Warm air furnaces equipped with air cooling units.
7. FHA-MPR-51—Minimum property requirements.

Subcommittee
Boiler-burner Units

Chairman: A Boiler-burner Manufacturer
Membership (18)

Manufacturers
Group A—Making complete units
Steel 1
Cast-iron 1
Group B—Make boiler—buy burner
Steel 2
Cast-iron 2
Group C—Burner manufacturers 2
Manufacturers of accessories, components, controls covering the above 3
Non-voting advisory—one each from:
IBR, ASME, BRMA, ASHAE, UL, FHA, Technical Division OHI, SBI 7

Note: A Technical Committee "A" is to be set up for domestic hot water supply standards.

Task

Codify under one cover relevant portions of:

1. UL-726—Oilfired boilers
2. UL-732—Oilfired water heaters
3. ASME—Boiler Code
4. SBI—Rating Code
5. IBR—Rating Code
6. FHA-MPR-51—Minimum property requirements.

Subcommittee
Direct-fired water Heaters

Chairman: Manufacturer of Water Heaters
Membership (13)

Manufacturers of water heaters 4
Manufacturers of burners 2
Manufacturers of accessories, components, controls 3
Non-Voting Advisory—one each from:
UL, ASME, Technical Division OHI, FHA 4

Task

Incorporate FHA and UL requirements into one standard.

Subcommittee
Oilfired equipment Installations

Chairman: A Large Installing Dealer
Membership (25)

Dealers
Appointed by OHI's Distribution Division 8
Manufacturers (Equipment)
Appointed by Steering Committee . . . one each from sub-committees on:
Burners 1
Furnace-burners 1
Boiler-burners 1
Direct-fired water heaters 1
Manufacturers (accessories, components, controls) covering the above 3
Non-Voting Advisory—one each from:
Technical Division OHI, UL, SBI, IBR, NWAHACA, FHA, NFPA and Fabricated Chimney Mfgrs. Assn., Tank Mfgrs. Assn., International Fire Chiefs Assn. 10

Task

Codify the regulations found in NFPA Pamphlet 31, all installation standards of NWAHACA, IBR, NBFU, UL-80 Tanks and provide an OHI installation check list. For example:

1. Electrical supply — Companies with regulations of the local body having jurisdiction.
2. Fuel supply—(a) Tank has approved UL label; (b) Tank inhibited.
3. Air supply—(a) Approved draft control; (b) Adequate combustion and ventilation air.
4. Chimney and vent—Comply with UL and local regulations.
5. Burner—Has UL-OHI label.
6. Furnace or boiler—Has UL-OHI label.
7. Initial start up—15 min. operation before making OHI performance test: (a) flame adjustment and color; (b) draft; (c) CO_2; (d) stack temperature; (e) smoke determination; (f) test for sound level; (g) certify on customer certificate.

Certification by Manufacturer

1. Statement will be filed certifying that product meets these requirements:
   A. Underwriters Laboratories for Safety.
   B. OHI Standards for Performance.
2. Certification is given to the Standard Steering Committee for approval.
3. Upon approval, combination UL-OHI Labels are ordered.
4. The Standards Steering Committee reserves the right to test the manufacturer's product for compliance at any time. If product does not meet the minimum standards, use of approval and labels is withdrawn pending compliance.

The combination UL-OHI label Service for Manufacturers

Burners

Each burner bearing the UL-OHI label shows that it:

1. Has been UL Approved
2. Complies with CS-75-56
3. Meets OHI Standards

Cost . . . 50¢ per label.

Furnaces

Each furnace bearing the UL-OHI label shows that it:

1. Has been UL Approved
2. Complies with CS-195-56
3. Meets OHI Standards

Cost . . . 50¢ per label.

Boilers

Each boiler bearing the UL-OHI label shows that it:

1. Complies with the ASME Code for low pressure heating boilers.
2. Meets OHI Standards.

Cost . . . 50¢ per label.

(Manufacturer includes cost of labels as a separate item in his billing.)

Product Labeling

All burners bear UL-OHI label.

All furnaces and boilers bear UL-OHI label.

A furnace-burner or boiler-burner bears two labels.

When installed according to Oil Heat Institute of America, Inc. Standards and requirements, the installer affixes his OHI label.

Cost of 50¢ par label goes into pot at local level.

1. To spot check installations.
2. To finance "quality product, quality installation for comfort in every room."

Policing Installations

1. FHA Minimum Property Requirements (FHA Inspection).
2. Other lending agencies to require UL-OHI product label and OHI Installation Standards.
3. International Association of Fire Chiefs to inspect for labels.
4. Local dealer groups to spot check dealer installations.
5. Various authorities having local jurisdiction.

Installer to work in close cooperation with FHA Field Office tieing in the FHA Certificate of Completion with copy of numbered OHI Installation Certificate.

The Installer

After affixing OHI Installation Label on burner and/or boiler-burner or furnace-burner unit:

(a) Makes out a certificate.
(b) Copy remains in his possession.
(c) Original placed in weather proof envelope and wired to the incoming power switch box where it will be available for

(Please turn to page 126)

Get in Hot Water!

Men 100% fueloil-minded gain much by recommending oilfired water Heaters

by
W. B. Adams

OILFIRED WATER HEATERS were not plentiful at the 13th International Heating and Air-Conditioning Exposition in Chicago, the last week of last February. That's putting it mild! Amidst thousands upon thousands of products on display at the Chicago show, were two lonely looking water heaters, only two, powered by fueloil.

That's indicative of the men of the oilheating industry overlooking one of the best ways to advance and increase the use of fueloil-powered equipment.

Those men interested in oilheating equipment mainly because it builds up their fueloil businesses are extremely shortsighted in not attaching great importance to oilfired water heaters. In disregarding such water heaters, fueloil men are failing to use one of their best weapons against the increased use of gas for heating.

Gas-minded enthusiasts, on the other hand, push their water heaters strenuously, so strenuously that they often use doubletalk that runs like this:

"If you put in a gas water heater, you get a lower rate for the gas you use for cooking—if you also use gas for cooking. Because you have gas piped into the house and use it for cooking and water heating, and because these two loads cause you to use lots of gas and thus lower the gas rate, you may as well use gas for heating. Use just one kind of fuel in your house, gas, for all your needs—for water heating, cooking, and house heating. That's the way to minimum fuel costs."

The flaw in this logic, in many localities where gas-heat men and oilheat men are fighting hard to put their equipment into new homes, lies in the fact that while (a) it is true that using much gas per month gives a homeowner the most Btu's per dollar he can obtain in gas, (b) fueloil none-the-less provides many more Btu's per dollar than gas does at the lowest rate a homeowner can get gas, even if he uses it "for everything."

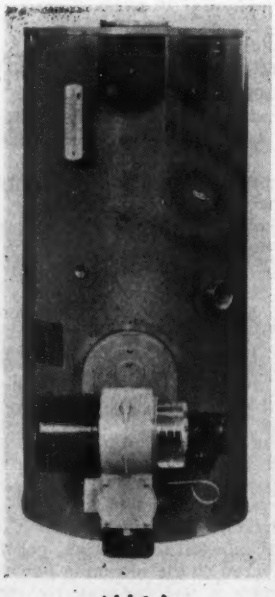
To set things straight in their own minds, men employed by fueloil companies and oilheating equipment dealers should start thinking in terms of the number of Btu's obtained for each one cent, or each one dollar, spent on fueloil . . . and spent on gas.

For fueloil, that's simple. In round numbers, each gallon of domestic fueloil contains 140,000 Btu. Used at 70% efficiency, one gallon of fueloil provides about 100,000 usable Btu's. With the fueloil priced at 15¢ per gallon, divide the 100,000 usable Btu's by 15. You learn that a customer buying 15¢ fueloil obtains 6,667 Btu's for each one cent he spends on the oil.

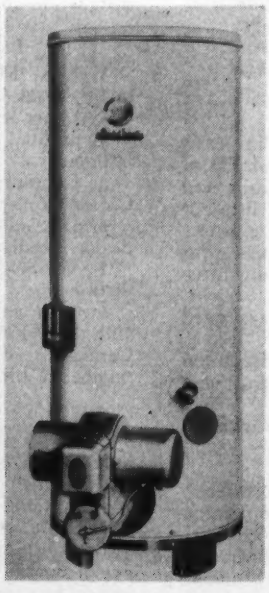
You can continue figuring. One gallon of water weighs 8.3 pounds. By definition, one Btu or British thermal unit is the amount of heat needed to raise the temperature of one pound of water one degree Fahrenheit. The usual basis is to figure that a water heater raises the temperature of hot water 100°F.—from 50°F. to 150°F., for example, or from 60°F. to 160°F.

Because a homeowner gets 6,667 Btu's for one cent spent on fueloil, and it takes 830 Btu's to raise the temperature of one gallon of fueloil 100°F. (that 830 is the result of multiplying 8.3 times 100), you can figure the homeowner gets eight gallons of hot water for each cent he spends on fueloil. Because dividing 6,667

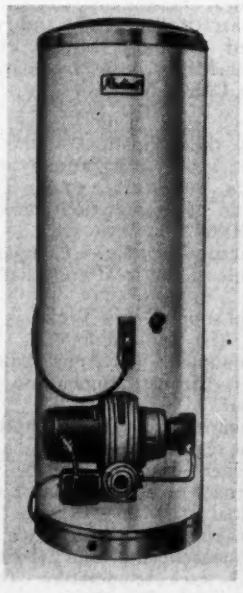
Typical oilfired water Heaters



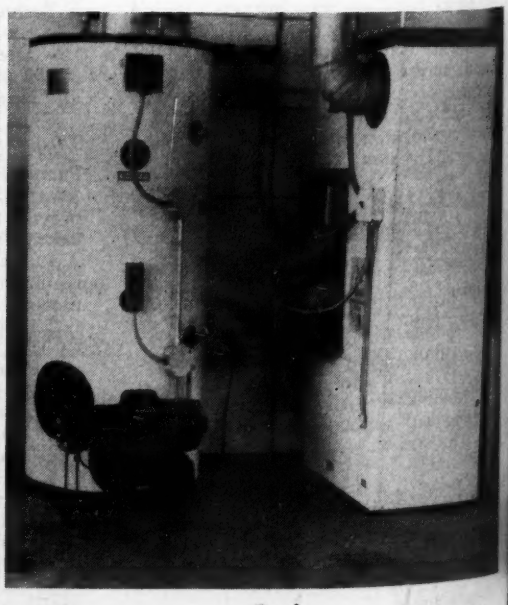
Aldrich



John Wood



Radiant



Bock

Btu's (the number bought for one cent) by 830 gives the eight.

The same type of numerical thinking, with your local gas rates and information about the Btu content of the gas injected into it, will show how many gallons of gas-heated hot water the homeowner will obtain for each one cent he spends on gas for heating water.

You'll wind up thinking in terms. A therm equals 100,000 Btu's.

The chart on page 78 on costs of heating water using fueloil, electricity, and gas appears here through the courtesy of the Timken-Scaife organization, which prepared it to help dealers sell Timken-Scaife water heaters. Study this chart. Learn to use it. You'll have to obtain information on the cost of gas for water heating in your locality, in terms of whether one therm (100,000 Btu's) in the gas cost the amounts listed in the chart, or in-between amounts that will make you do a bit of figuring or interpolating.

Telling a homeowner that 15¢ fueloil provides eight gallons of hot water at the 150°F. or 160°F. explained earlier, you don't stop there. You have more points to make.

First, gas-fired water heaters found in most homes are relatively feeble in their ability to heat water. Therefore many of them send out most of their "hot" water, at times when much "hot" water is needed, at temperatures much below the above-mentioned 150°F. or 160°F. Homeowners don't know this; feeling 125°F. "hot" water pour onto their hands from a faucet, they think the water really is "hot."

Second, water heaters powered by oilburners, by the gun-type oilburners used in most oilfired water heaters, have vastly more power than the gas-fired water heaters used in typical homes. Therefore these oilfired water heaters really can provide the 150°F. or 160°F. hot water needed for best operation of automatic washing machines and automatic dishwashers.

Third, whereas he gets eight gallons of really hot 160°F. water for one cent spent on 15¢ fueloil, a homeowner gets many more gallons of water at the moderate temperatures needed for washing hands, taking baths and showers, etc. For the one cent, he gets 16 gallons of water warm enough for a "hot" bath in a bathtub.

The great water-heating power of oilfiring shows up in such additional numerical thinking as this:

Divide the 100,000 usable Btu at 70% efficiency in one gallon of fueloil by the 830 Btu needed to raise the temperature of one gallon of water by 100°F. In round numbers, you arrive at a quotient of 120. Divide by 60 (the number of minutes in one hour) and you wind up with the basis of a thumb rule that's been published dozens of times in FUELOIL & OIL HEAT . . . which is: Firing one gallon-per-hour, at 70% efficiency, can provide two gallons of hot water per minute, heated over a 100°F. temperature rise.

Thus a water heater oilfired at 1.0 gph, working at 70% efficiency, can raise the temperature of 120 gallons of water per hour by a full 100°F. temperature rise!

Now check up on the models of gas-fired water heaters usually offered to homeowners in your locality. You'll find them feeble. You may find that a 20-gallon gas water heater has an input of 20,000 or 25,000 Btu per hour. A 40-gallon size may have an input of 35,000 or 40,000 Btu per hour.

Check those figures against the Btu input rates of the oilfired water heaters you can offer your customers. Fired at .50 gph, an oil-powered water heater has an input of 70,000 Btu per hour. Fired at .75 gph, such a water heater has an input of 105,000 Btu per hour. Fired at 1.0 gph, the Btu input is a tremendous 140,000 Btu per hour—because 140,000 Btu represents, of course, the heat content of one gallon of fueloil.

Numerical thinking of the kind discussed up to now in this article gives you the basis to educate your customers. You can explain to them that oilfired water heaters are in a class by themselves . . . with respect to Btu input power.

Check the gas and oil water heaters available to homeowners in your locality, on a basis of installed price of each water heater versus its actual water-heating ability in terms of Btu input. You'll learn that in buying an oilfired water heater, a homeowner gets vastly more water-heating ability per dollar spent on water-heating equipment, than in buying a gas water heater.

One oilheating equipment dealer had a habit of saying years ago, "The catch to installing an oilfired heater fired by a gun burner, in a one-family house, is that the smallest model you can install has sufficient water-heating ability for a three or four family house."

Today he no longer says that, but tells homeowners instead, "The popularity of automatic dishwashers, automatic washing machines, and daily baths for each member of the family has grown and grown during the last ten years. Along with this, the need for hot water in a home has increased terrifically. Today gallons of hot water are used in a typical home where quarts used to be enough.

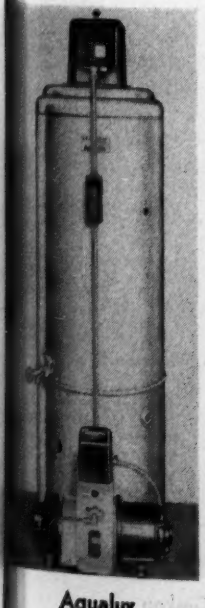
"The gas industry has not recognized this and kept pace with it. But I have. The gas interests recommend for a four-family house the same capacity water heater I install in a one-family house."

Among the chief advantages of an oilfired water heater are:

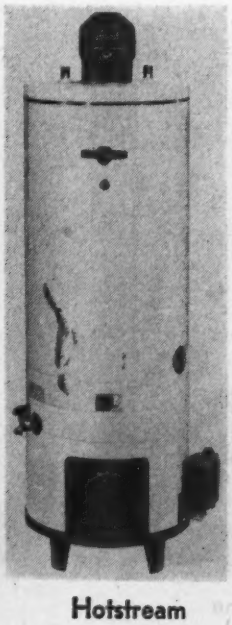
1. Tremendous capacity not found in other types of water heaters being offered to homeowners.

2. Low price for the installed water heater, compared to its tremendous capacity.

3. Monthly fuel bills amazingly low



Aqualux



Hotstream

compared to the bills resulting from use of another fuel in an automatic water heater.

4. The convenience of using one fuel, oil, which is delivered automatically, for both house-heating and water-heating.

5. The well-known safety of oil as fuel. The drip of fueloil from a little pipe leak can be annoying; the resultant oil odor makes the homeowner call a serviceman. The escape of gas from a little pipe leak has more than annoyance to it—it is a good reason to have the occupants leave the house immediately.

You can also point out to a homeowner that, thanks to its high capacity or high Btu input, the oilburner firing a water heater runs but little usually, when ordinary amounts of hot water are being used. Less than two hours per day oilburner "on" time is usual. That leads to many years of oilburner life and to little trouble, because the oilfired water heater is powered by precisely the same model oilburner used for house heating; and in heating a house an oilburner may run a total of 1,500 hours a year. Most days, then, the burner firing a water heater is on vacation! A homeowner finds it almost impossible to draw enough hot water to make the oilburner firing his water heater run a total of four hours a day!

At certain high-up executive levels of the fueloil industry, where oil-heated hot water has been considered extensively in connection with increasing the use of fueloil for heating homes, the thinking became tangible to this degree:

It was decided that in building a new home which will be heated by the highly popular forced-air type of system, an owner should be able to buy an installed oilfired water heater for no more than $200. That price would apply to a water heater installed when the house is being built.

The oil piping, water piping, smoke-pipe, and electric wiring of the oil-fired water heater are included in the installed price, of course. But the installation costs are lower while the house is being built than they are otherwise. Service for one year also is

(*Please turn to page* 130)

Comparative water heating Costs

(For average family of 4; based on 2,000 gals. of hot water per month)

	Monthly Cost	—Monthly Savings @ oil price— 13¢ gal.	14¢ gal.	15¢ gal.
Electric Water Heater				
@ $.01 per K.W.H.	$ 5.00	$ 2.40	$ 2.20	$ 2.00
@ .02 per K.W.H.	10.00	7.40	7.20	7.00
@ .03 per K.W.H.	15.00	12.40	12.20	12.00
Gas Water Heater				
@ $.10 per Therm	2.50	..	..	..
@ .15 per Therm	3.75	1.15	.95	.75
@ .20 per Therm	5.00	2.40	2.20	2.00
@ .25 per Therm	6.25	3.65	3.45	3.25
@ .30 per Therm	7.50	4.90	4.70	4.50
Oil Water Heater				
@ $.13 per gal.	2.60			
@ .14 per gal.	2.80			
@ .15 per gal.	3.00			

The above costs are based on heating 2,000 gallons of water to a 100° temperature rise.

2,000 gallons of water heated through 100 degrees required 8.3 x 2,000 x 100 = 1,660,000 Btu's.

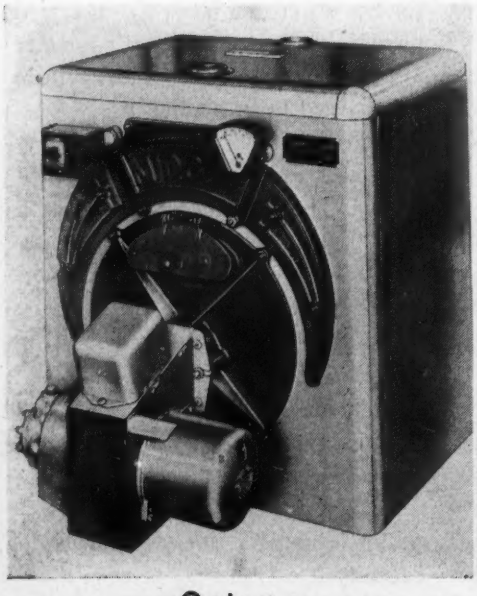
Electric water heating: 3,415 Btu's per K.W.H. at 100% efficiency or 1,660,000 ÷ 3,415 = 486 K.W.H.—plus stand-by loss equals 500 K.W.H.

Gas water heating produces 100,000 Btu's per Therm at 80% efficiency or 1,660,000 ÷ 80,000 = 20.75 Therms—plus stand-by loss equals 25 THERMS.

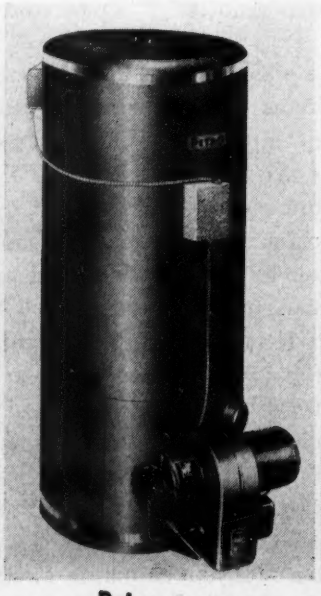
Oil water heating produces 140,000 Btu's per gallon at 70% efficiency or 1,660,000 ÷ 98,000 equals 17 gals. oil—plus stand-by loss equals 20 GALLONS.

Note: A "Therm" of gas is 100,000 Btu's.

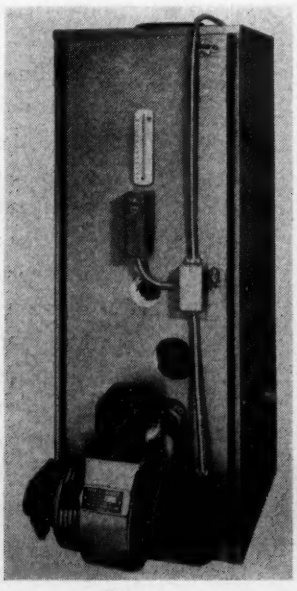
More Typical oilfired water Heaters



Century

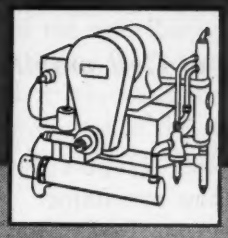


Petro



Penn

Timken



COMMERCIAL & INDUSTRIAL oilburning

SECTION

fueloil & oil heat

NEW YORK

COMMERCIAL & INDUSTRIAL oilburning

How to modernize Jobs by applying Electronics

Part II—Instructions on proper Aiming of Cell monitoring Gas-pilot and Main-flame

Commercial-industrial oilburner experts should read the first part of this article by J. W. Schulz, which appeared in the June issue of FUELOIL & OIL HEAT, *before reading the second part which appears here.*

This two-part article makes clear that learning how to install and service electronic oilburner controls does not include learning vast amounts about electronics. It includes such simple and easily understood points as making certain to use the proper wire size and wire insulation for the circuit of a lead-sulphide cell, making certain this circuit is not overly or unnecessarily long, and making certain the wires of this circuit are housed in conduit that contains no other wires.

The work of installing and checking the operation of a lead-sulphide cell set-up, which uses one cell to monitor the gas pilot and the oilburner flame, includes the important work of first trying to aim the cell properly —then testing to ascertain whether or not you succeeded in aiming the cell properly. How to do these things is covered in detail in this article by words and specially made drawings..

Aiming, then checking for proper aiming, is highly important work. This work cannot be done by an electronics engineer, but must be done by an oilburner expert intelligent enough to read and understand instructions— and to follow them to the letter. No knowledge of electronics, as such, is needed to do all the other work included in installing and servicing oilburner controls of this type.

JIM TAPKAS, Minneapolis-Honeywell engineer who supervised the installation of the electronic R478B Protectorelay installed in the institution, has many down-to-earth pointers for men installing lead-sulphide cells for the type of monitoring described above—gas-pilot flame, and main oil-flame monitoring.

First, says Jim Tapkas, don't try to drill the hole needed in the boiler front plate, of a burner already installed, for the lead-sulphide cell. Drilling is too slow and difficult. The hole must be elliptical because the ½" pipe on which the cell will be mounted goes through the front plate at a slant.

Have a welder on the job to cut the hole and weld the ½" pipe in place after you aim it properly. You'll need him on the job for about an hour and a half.

As the accompanying front view of the burner and its front plate shows, you locate the hole for the ½" pipe at the seven o'clock position of the burner's blower housing, as close as possible to the blower housing. Chip, or otherwise get through, the refractory material inside the front plate, which forms the firebox front wall.

The opening you provide for the ½" pipe, through the steel front plate and the firebox front wall, must be large enough for considerable movement of the ½" pipe. You've got to be able to move the pipe considerably to do your aiming.

Before starting the aiming of the ½" pipe, make absolutely certain the burner is adjusted to fire normally. That can't be overemphasized, according to Jim Tapkas.

You'll do your aiming with the boiler's firing door or flame-observation door closed—the way it normally is during a burner start-up. The burner's blower will be running during aiming, but because the solenoid shut-off valve in the burner's cup line has been disconnected no fueloil will go to the burner's atomizing cup.

Important: The proper amount of air will come from the burner's blower when you do the aiming. That's the proper amount of burner-blower air for a start-up, whether the burner provides a fixed firing rate, or starts up giving a small flame which later becomes larger . . . low-fire start.

The over-fire draft must be as usual for a burner start-up. A barometric smokepipe draft regulator must be adjusted properly before you start aiming, if the job has one. A draft inducer must be running at the proper speed, if the job has one. The proper amount of secondary air for a start-up must be flowing into the firebox, so find out if a secondary-air damper needs adjustment.

Do anything else that must be done to make certain the burner is

In each *of these three drawings, a little circle shows the all-important location which the lead-sulphide cell is sighting. During an oilburner start-up, the cell must first see a good, strong gas-pilot flame extending out as far as this circle, thus well able to reach and ignite atomized fueloil when it starts coming from the burner's atomizing cup. After ignition is cut off, the cell sees the oil flame at the same location —shown by the circles. Certain exceptional horizontal-rotary oilburners which have been in use for years are found to give gas-pilot flames too weak and undecided to give good signals to lead-sulphide cells. Only occasionally does a dealer encounter such a burner. When he does, he has found definite proof that the gas-pilot flame in use for years simply has not been doing a good job. He should take up with the oilburner manufacturer the problem of fitting the burner with a better ignition system—which provides a strong, healthy gas-pilot flame that can be proved by a lead-sulphide cell. The cell actually provides an exceedingly strong signal, of greater intensity than is needed to work the Protectorelay properly, when viewing good gas-pilot flames of ordinary ignition ability.*

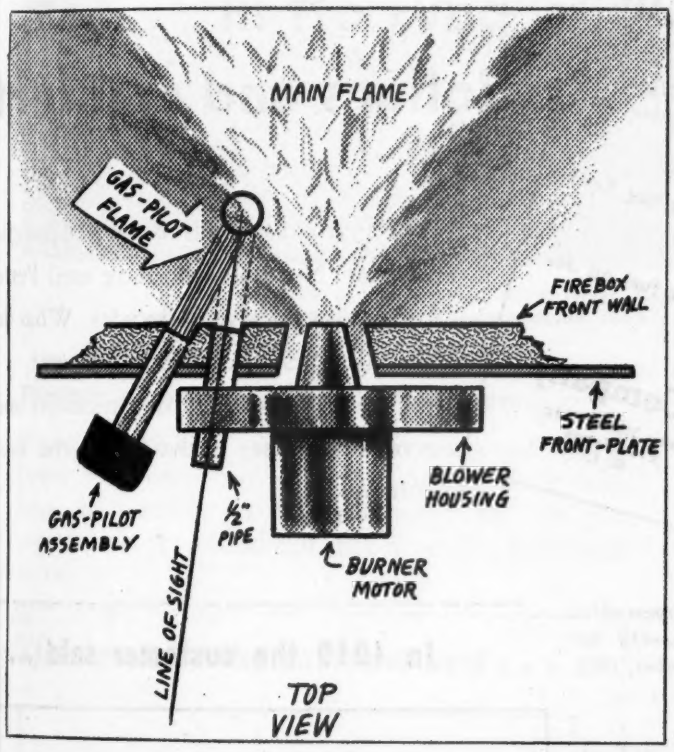
adjusted to fire normally—particularly to start up normally. Then start aiming the lead-sulphide cell's ½" mounting pipe. The accompanying drawings, specially made by FUELOIL & OIL HEAT with help from Jim Tapkas, are intended to help you perform the aiming operation, which though a little tricky works out to be tremendously gratifying after you've accomplished it.

As the three accompanying drawings show, by heavy little circles in each drawing, on a job of this type (one cell proves both gas-pilot flame and oil-fire main flame) the cell must sight the normal junction of the pilot flame and the main flame.

In the three drawings, the ½" pipe is aimed at the all-important little, heavy circle—for at this location the gas-pilot flame lights the fueloil.

Run the burner motor with every adjustment set up for a start-up, as described in detail earlier. The burner's shut-off valve is disconnected so that no fueloil will go to the atomizing cup, as described earlier. You sight through the ½" pipe, though this includes contortions for you on some jobs, and you aim the pipe as the drawings show.

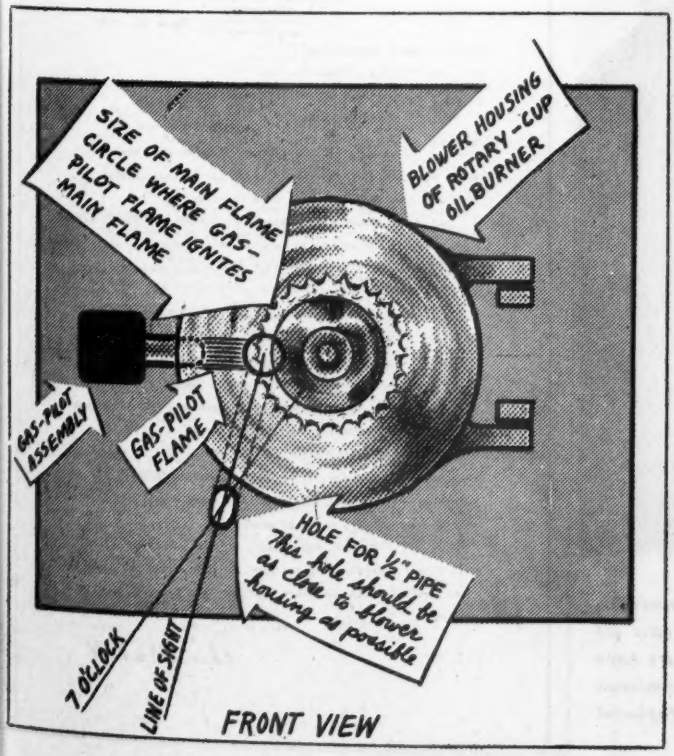
Place the pipe in the position that

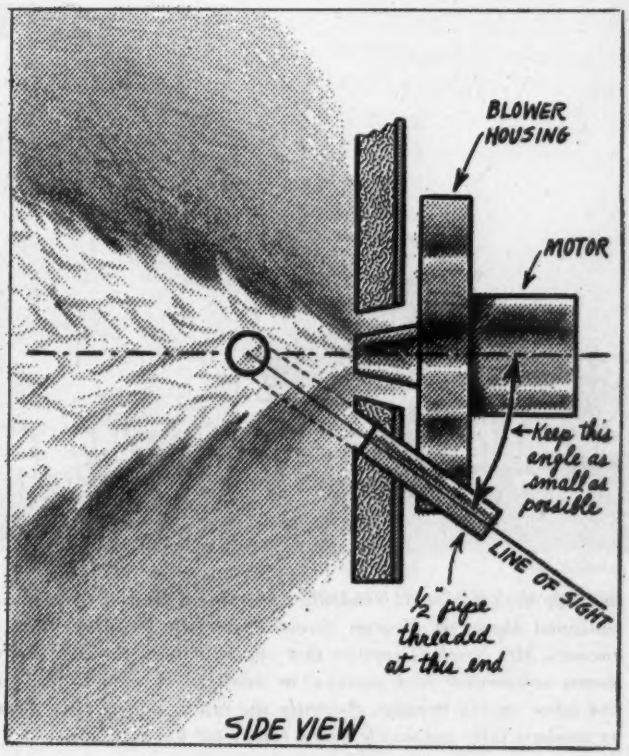


Run the burner motor with its solenoid shut-off valve (in the oil-line to the atomizing cup) disconnected so that no fueloil can flow to the cup. The gas flame of the ignition system will be on. Then sight the gas-flame pilot with your eye through the ½" pipe. That is the best proof of correct viewing angle — of aiming the ½" pipe correctly. If you can see the gas flame, the cell can see it

GOOD! Flame fills viewing area properly!

BAD! Only part of ½" pipe "sees" gas flame.


SIZE OF MAIN FLAME
CIRCLE WHERE GAS-PILOT FLAME IGNITES MAIN FLAME
BLOWER HOUSING OF ROTARY-CUP OIL BURNER
GAS-PILOT ASSEMBLY
GAS-PILOT FLAME
HOLE FOR ½" PIPE
This hole should be as close to blower housing as possible
7 O'CLOCK
LINE OF SIGHT
FRONT VIEW



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We manufacture the particular type of burner best adaptable to your boiler plant, also the accessory equipment to complete the installation.

Our equipment comprises a large range of burners, for both high and low pressure.

We also operate our own fleet of motor trucks for fuel oil delivery in New York City, Boston and Providence.

Petroleum Heat and Power Company

100 Boylston St. Boston, Mass.

511 5th Ave. New York N. Y.

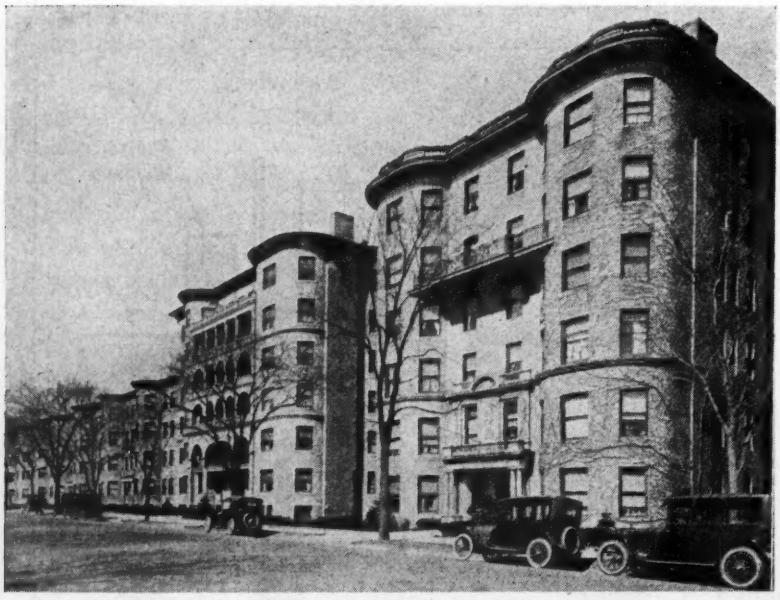
Turks Head Bldg. Providence R. I.

This advertisement appeared in the first issue of FuelOil for Heat & Power, December, 1922.

Here's how PETRO pays off in dollars and comfort

The Petro case files are full of people like Mr. Newhall who have used Petro equipment for several decades. What do they like best about Petro burners? ... the real down-to-earth dependability and economy. They proved that the *best costs less.*

In 1919 the customer said ...



In 1919, Mr. Charles A. Newhall, a prominent Boston real estate operator, equipped these six Beacon Street apartment buildings with Petro oil burners. Mr. Newhall reports that repeated tests through the years have shown substantial fuel savings, in addition to cleanliness, convenience and labor saving benefits. Recently the older models have been replaced by modern fully automatic Petro rotary oil burners.

CHARLES A NEWHALL
REAL ESTATE
[illegible] TREMONT STREET
BOSTON MASS

June 16, 1919.

Mr. William C. McTarnahan,
Foss Rotary Oil Burner, Inc.,
19 Central Street,
Boston, Mass.

Dear Sir:-

I am much pleased with the Foss Burners installed in our five apartment buildings, numbers 1080, 1090, 1100, 1110 and 1120 Beacon Street, Brookline, Mass.

Owing to the fact that the oil was put in in the middle of the Winter, it is impossible accurately to state the actual saving in the cost of fuel, but I feel sure it is considerable.

The janitors have practically their whole time free for other work, in fact the janitors' wives take care of three of the boilers most of the time. There is no dust and dirt working up the stairways and through the buildings. As the Inspector of the Town of Brookline expressed it, "You could eat your dinner in the boiler room."

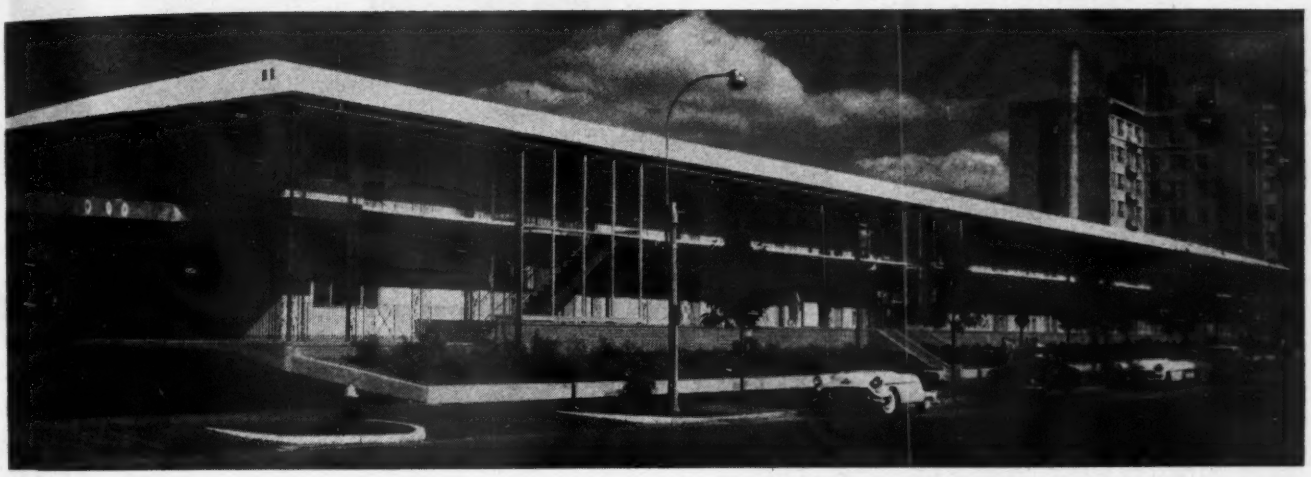
In the Spring and Fall, when heat is needed for only a few hours a day, it is a simple matter to light the oil burner and turn it out when it is no longer needed, instead of starting a coal fire which is expensive.

My best endorsement of your burner is the fact that I have just placed a contract for two additional installations, making seven buildings equipped with Foss oil burning systems.

Very truly yours,

Charles A Newhall

# of leadership in engineering, manufacturing of automatic heating and power equipment.



Above, one wing of 1200 Beacon Street Hotel, Boston's newest and finest. Hotel has 175 rooms, luxurious dining room, cocktail lounge, coffee shop, and 200 car underground garage. Heated by Petro oil burners, of course!

Thermal Viscosity System cuts fuel costs

Whatever the fuel — from light residential oil to heavy #6 bunker oil — Petro burners fire it with ease. By burning the low-cost heavy fuel oils you save on cost-per-gallon and they have 8% more heat value!

Fully Automatic — follow the load

Interlinking draft, flame and fuel supply controls balance the firing output with load demand *automatically* — eliminates costly overfiring and constant adjustments. Cuts labor costs too.

Easily adapted to any boiler room

Old boiler rooms and heating systems gain new-found efficiency when modernized with a Petro oil (or combination oil-gas) burner. Also available is a complete factory assembled and tested forced draft Petro firing system. This system, which will meet your exact fuel and firing requirements, can be attached to your boiler and be in operation in a matter of hours. Whatever your firing need you'll find that Petro's 54 years of experience will serve you best. Inquire right away on how Petro can cut steam costs for you.

37 years later the customer said . . .

CHARLES A. NEWHALL
REAL ESTATE
1101 BEACON STREET
BROOKLINE 46, MASS

April 25, 1956

Petroleum Heat and Power Co.
65 State Street
Boston 9, Massachusetts

Gentlemen:

We have been using Petro semi-automatic Turbia Oil Burners to burn #6 Bunker fuel oil since 1919, and we now have eleven plants.

Besides the cleanliness, convenience and saving of labor, the use of these Petro Oil Burners has resulted in a considerable saving in our fuel costs.

We feel certain that we are obtaining the most economical heating service possible. The many scientific tests that have been made have proved this to be so.

In fact our association with your Company and products has been so satisfactory, that when Petro came out with a fully automatic burner, we replaced most of our older equipment with the new fully automatic burners which have proved very satisfactory.

We will be glad to have anyone look over our heating plants at any time, and we will be more than pleased to recommend your Company and Petro Oil Burning equipment.

Very truly yours,

Charles A Newhall

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PETRO
MAKERS OF QUALITY
HEATING AND POWER EQUIPMENT SINCE 1903

BOILERS
BURNERS
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PETRO, 3542 West 106th Street, Cleveland 11, Ohio

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Company.....

Address.....

City..... Zone..... State.....

sights it at the business end of the flame of the gas pilot—the end that actually lights off the fueloil on a start-up.

If you can see the proper part of the gas flame, the cell which will be mounted on the pipe can see it. Remember, during normal burner operation, ignition off, the cell will see the oil flame.

The welder tacks the ½" pipe in place temporarily, when you've done properly your first aiming or sighting.

Try to avoid having the cell aimed at refractory material of the firebox. Seeing refractory which becomes red-hot, the cell may stop the burner. That's because the cell responds to flickering light from a gas flame or oil flame, but does not respond to steady light such as red-hot refractory material can give. Receiving much steady light from red-hot refractory, the cell is blinded—it cannot then detect properly the flickering light from a flame.

Seven o'clock Position

The seven o'clock position shown in the accompanying front view is good for most jobs, because for one thing it avoids the cell's being able to see refractory firebox material which becomes red-hot.

"The main consideration," Jim Tapkas sums up, "is sighting the gas-pilot flame as far away from the atomizing cup as possible, and still getting a good look at this gas-pilot flame, without winding up with the cell seeing hot refractory material when the firebox is red-hot. Generally the problem of having the cell see the main oilburner flame, during normal operation with ignition off, is secondary. Proper pilot sighting makes main-flame sighting fall pretty well in line."

You had the welder tack the ½" pipe temporarily in place, after you did your sighting of the business end of the gas-pilot flame with every burner adjustment set for proper start-up, with the burner motor running, but the cup-line shut-off valve kept closed by disconnecting it.

Jim Tapkas *has his hand on the lead-sulphide cell, mounted on the ½" pipe welded in the seven o'clock position of the burner's blower housing. The piece of cardboard in the picture was placed on the floor to make things appear more clearly than they would be without it.*

Now you are ready for the important and interesting "pilot turn-down test." Put the lead-sulphide cell in place on the ½" pipe. Connect to the Protectorelay a DC voltmeter and set up to use its 150 volt range—in the simple fashion covered in the Protectorelay instructions. Leave the cup-line shut-off valve disconnected as it has been—so it cannot open.

Following normal sequencing, close the switches and control circuits that tell the burner to start. The burner motor will run. You are going through a normal start-up, remember all adjustments are correct for a start-up—but no fueloil will flow to the burner's cup.

With the cell seeing the gas-pilot flame properly, the voltmeter will now give you a steady reading of between 90 and 140 volts. Any reading between those limits is good.

Now you start turning off the flow of gas to the ignition system, extremely gradually, using the gas valve in the line providing the gas for ignition. You are gradually reducing the size of the burner's gas-pilot flame. Continue on closing the valve, gradually and slowly, until flame relay #2 drops out because the cell no longer sees the gas-pilot flame. The R478B Protectorelay instructions identify flame relay #2 for you.

Now open the gas valve in the gas feed line—again moving the valve handle extremely slowly and gradually. Stop opening the valve at precisely the time that the flame relay pulls in again.

Doing this with extreme care, you have adjusted for the smallest gas-pilot flame which can get an "okay" or "go ahead start firing oil" signal from the lead-sulphide cell. The question to be settled now is whether or not this size gas-pilot flame is sufficiently big for a smooth, safe start-up—for instant ignition of the atomized fuel-oil that will come from the atomizing cup when the burner should first start firing oil.

Now look at the size and location of the turned-down gas-pilot flame you just adjusted. Remember, this is the smallest gas-pilot flame the lead-sulphide cell will "see" and report as adequate to light the fueloil.

If your expert inspection of the turned-down flame causes you to believe it will safely light the main oil flame, try it. Connect the burner's cup-line solenoid shut-off valve, and start the burner. This is the correct time to keep your hand on a switch that can stop the burner.

"If the light-off is smooth you have

Improved Rotary Type 22
This cut shows a complete installation of Underground Oil Storage Tank-Piping and Johnson Improved Rotary Oil Burner. Note—How Simple—And Safe. Can be readily installed in most any Boiler Heater or Furnace. Patented features of Centrifugal Atomization permit the cheapest grade Fuel Oil to be pumped and burned with high economy and satisfactory service—Listed as standard by Underwriters' Laboratories.
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Distributors and Branches
San Francisco, New York, Chicago, St. Louis, Philadelphia, Detroit, Dallas, Los Angeles, Indianapolis, Portland, Seattle, Milwaukee, Louisville, Bridgeport, Paterson, Sacramento, Buffalo, Toronto, Montreal, Cleveland, Hull, Fresno, Kansas City, Oklahoma City, Honolulu, Minneapolis, Washington, New Orleans, Miami.
S.T.JOHNSON BURNERS
Write For
Our Latest Bulletin
No. 28D, describing
and listing this Oil
Burner Masterpiece.

This half-page Johnson Oil Burner advertisement ran in the Sept. 1924 issue of "Fuel Oil" . . . the forerunner of FUELOIL and OIL HEAT.

CONGRATULATIONS . . .

TO A FINE 35-YEAR-OLD TRADE JOURNAL

FROM THE S. T. JOHNSON CO.

WHICH HAD BEEN ENGINEERING

AND MANUFACTURING FINE OIL BURNERS

FOR NINETEEN YEARS

AT THE TIME FUEL OIL AND OIL HEAT

WAS BORN. AS TEAMMATES OF YOURS

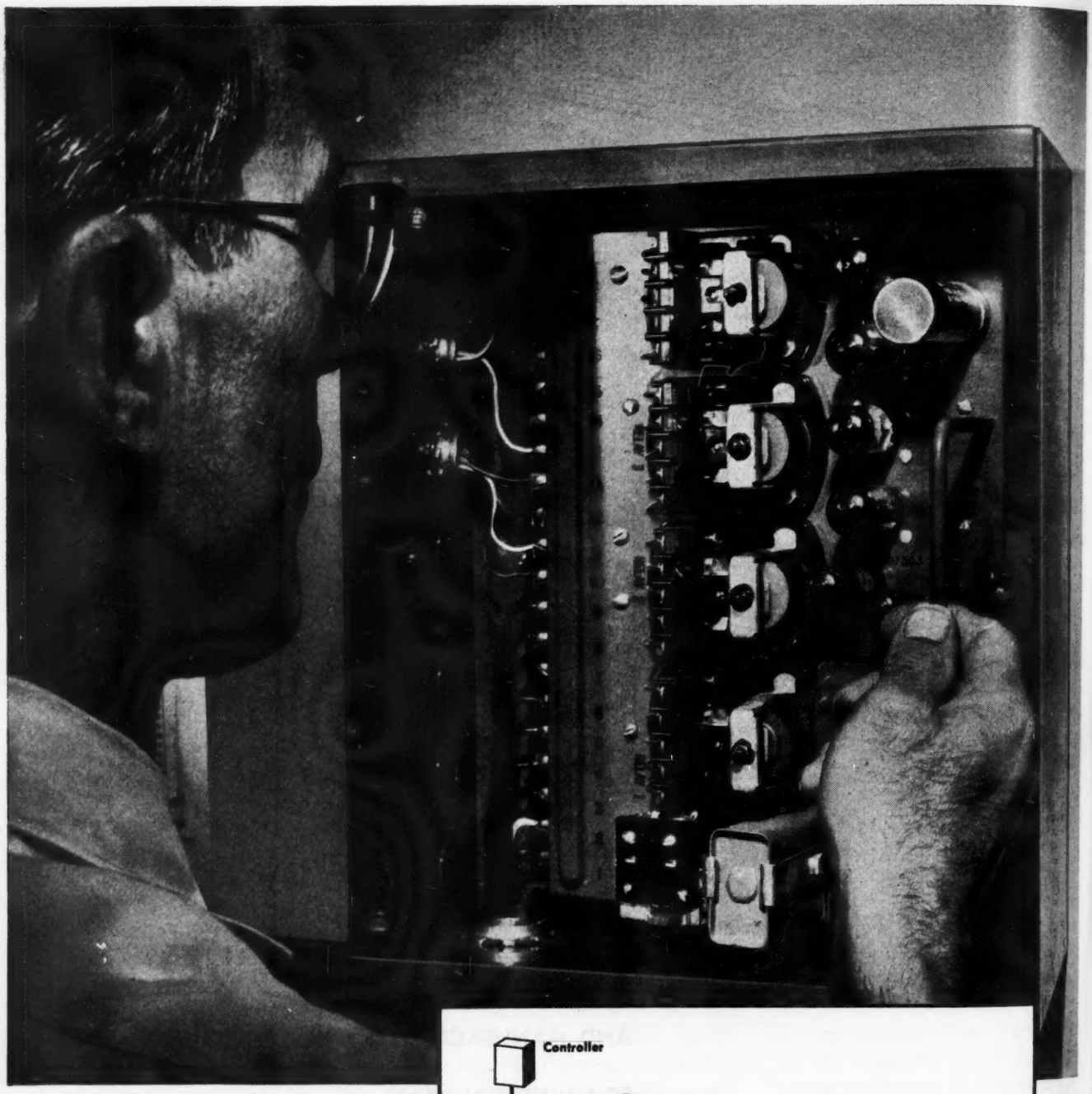
IN THE ADVANCEMENT OF OIL HEATING

WE WISH YOU MANY "HAPPY RETURNS".

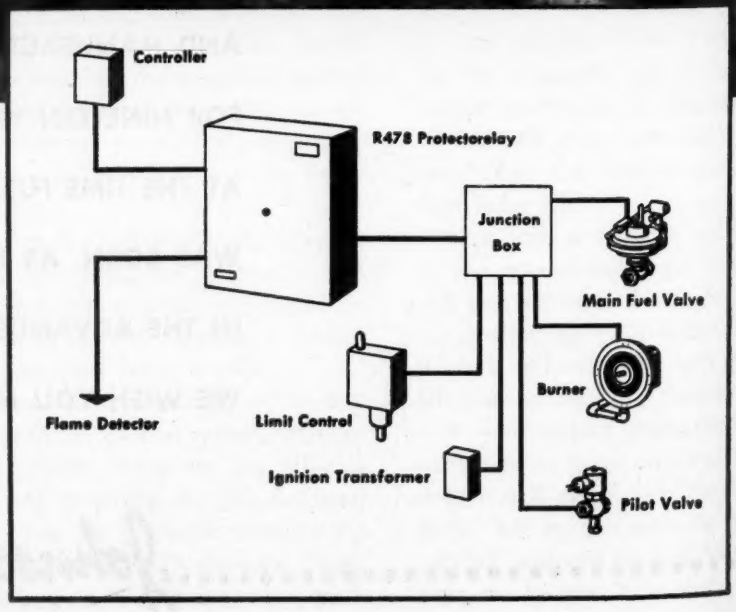
Builders of fine Oil Burner Equipment since 1903

Johnson Oil Burners

S. T. JOHNSON CO.
940 Arlington Ave., Oakland 8, Calif.
Church Road, Bridgeport, Pennsylvania



The new R478 Protectorelay you see being installed above assures you a safe start after each power interruption regardless of length or cause. Every time power returns, the electronic network must prove itself to be safe before the burner can be started. With power on during stand-by the electronic circuit checks itself continuously. The R478 responds instantly to flame failure, providing immediate burner shutdown and post purge.



A flame safeguard for commercial burners

New Honeywell R478 Protectorelay*

gives your customers the ultimate in

Safety • Performance • Flexibility

• **Choice of flame detection**—R478A for flame rectification (flame sensing rod and photo cell). R478B for Flameguard (lead sulphide cell).

• **Choice of burner sequencing**—choose from:

- Pre-purge period either 5 or 30 seconds.
- Proved or unproved pilot or direct ignition.
- Intermittent or interrupted pilot.
- Ignition timing either 15 or 60 seconds.
- Low fire start with return to firing rate control either when main fuel valve opens or at end of ignition period.

In combination gas-oil burners one sequence can be selected for gas firing, another for oil firing.

• **Choice of manual or automatic starting.**

• **Wide selection of voltage**—voltage selector permits use on 120, 208 or 240-volt 60 cycle service. Separate model available for 50 cycle.

• **Broad range of applications**—precision engineered for large conversion burners—such as horizontal rotary, mechanical, air or steam atomizing and forced draft gas—also for steam generators and floor standing heaters.

• **Fast dependable electronic detection and timing**—R478 responds *instantly* to flame failure. Then, vacuum-tube rectifiers assure uniform electronic timing of sequences.

• **Easy to install.**

• **Lower maintenance costs**—Time-proven Honeywell components—unaffected by friction, dust or corrosion—assure constant efficient operation.

Honeywell manufactures a complete line of heating controls for all types of oil and gas burners. With Honeywell you can rely on one supplier for all of your controls. For information on the R478 or on any of our other controls, call your local Minneapolis-Honeywell office. Or, write Dept. FH-7-140, Minneapolis 8, Minn.

Honeywell

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Congratulations to Fueloil & Oil Heat on its 35th Anniversary

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IMMEDIATE DELIVERY
WRITE NOW FOR DETAILS TO —
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2100 Hunters Point Avenue, Long Island City 1, N.Y.
Most everyone Calls
Paragon NONE BETTER for LARGE OIL BURNERS
Nationally famous eye-appealing Paragon Oil Burners are similar in attractive design in all sizes.
4 SIZES TO COVER REQUIREMENTS FROM 2.25 THROUGH 17.00 G.P.H.
MODEL A-50: 2.25 to 5.00 G.P.H.
MODEL A-75: 5.00 to 7.50 G.P.H.
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MODEL A-180: 9.00 to 17.00 G.P.H.
Approved by Underwriters Laboratories — Board of Standards and Appeals for use in New York City, States of Conn. and Mass.
MODEL A-50
MODEL A-75
MODEL A-100
MODEL A-180

a good lead-sulphide cell location for the pilot," says Jim Tapkas, "But if the main flame does not light off within a few seconds after the burner's cup-line solenoid valve opens, don't wait for St. Peter to send you a written invitation. Pull the switch, but fast! Relocate the lead-sulphide cell, for you've wrongly located it. You've aimed it at a spot that causes it to 'okay' a gas-pilot flame that's too small, too weak and feeble, to light off quickly and safely the atomized oil coming from the burner's atomizing cup."

The only check to be made now, after the pilot turn-down test, is to put the burner through its entire operating sequences. Keep the DC voltmeter connected to the Protectorelay as it was during your pilot checking, and notice the readings it gives. Put the high-low and modulating-flame burners through all their paces. Their different size flames should produce fairly stable readings from the DC voltmeter, and flame relay #2 should not drop out. Check especially closely the lowest and highest gph rate firing of burners that give different flame sizes. Experts use combustion testing instruments to arrive at final oilburner adjustments.

Putting the burner through its entire operating sequence includes a hot-refractory check-up. Run the burner until its firebox is red-hot—as hot as it ever will become during typical on-off cycling of the burner. When burner stops firing, make certain that flame relay #2 drops out within about four seconds. This check-up makes certain the lead-sulphide cell is not fooled by seeing red-hot refractory material. Such material can, under certain conditions, give flickering light which, at least for a short time, can make a cell report wrongly that it is seeing flame.

After you thought you did properly your first aiming or sighting through the ½" pipe, you had the welder tack the pipe in place temporarily. At this point, whether or not your check-ups caused you to switch to different aiming with the welder helping you, you know the lead-sulphide cell is aimed properly. The pilot turn-down test, the hot refractory check-up, and putting the burner through all its operating sequences proved that. Now you have the welder complete his work by welding the ½" pipe in place permanently. Some time later, when the firebox is cool enough to permit this, you will patch up neatly the hole you chipped through the firebox front wall.

COMMERCIAL & INDUSTRIAL oilburning

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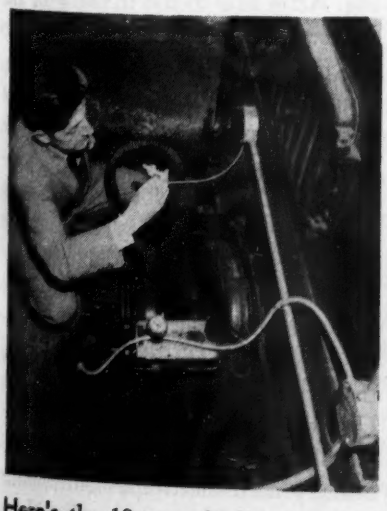
FUEL OIL PUMPS
Compact, lightweight pumps that operate at wide ranges of speed—to handle oils of all viscosities and give long trouble-free life.
CLASS 50 LIGHT OIL PUMPS
Direct-drive design
Roller tolerances permit handling extraneous matter that would jam other mechanisms. Good suction characteristics. Capacities 60-600 GPH; pressures to 100 psi. Ask for Bulletin A-1330.
CLASS 60 HEAVY OIL PUMPS
Reduction-drive design
Time-tested Kraissl design for direct burner supply—or as booster pump. The pump that will pull heavy oil when it is cold. Capacities, 75-1800 GPH; pressures to 100 psi. Ask for Bulletin A-1193.
Bulletin A-1330 and/or Bulletin A-1193 . . . gives you full data—write for your copy today!
KRAISSL KRAISSL CO
295 Williams Ave., Hackensack, N. J.

"By all means ask for help from the manufacturer of the oilburner," advises Jim Tapkas, "before completing your plans to switch an installed burner to the use of electronic combustion-safety controls. In cases including converting from manual to automatic oilburner operation while installing the electronic controls, often you must change burner parts to have the jobs conform to UL ideas and meet with UL approval. Speeds of burner blowers and atomizing cups may need changing. 'Approved' ignition system assemblies often must be obtained from oilburner manufacturers."

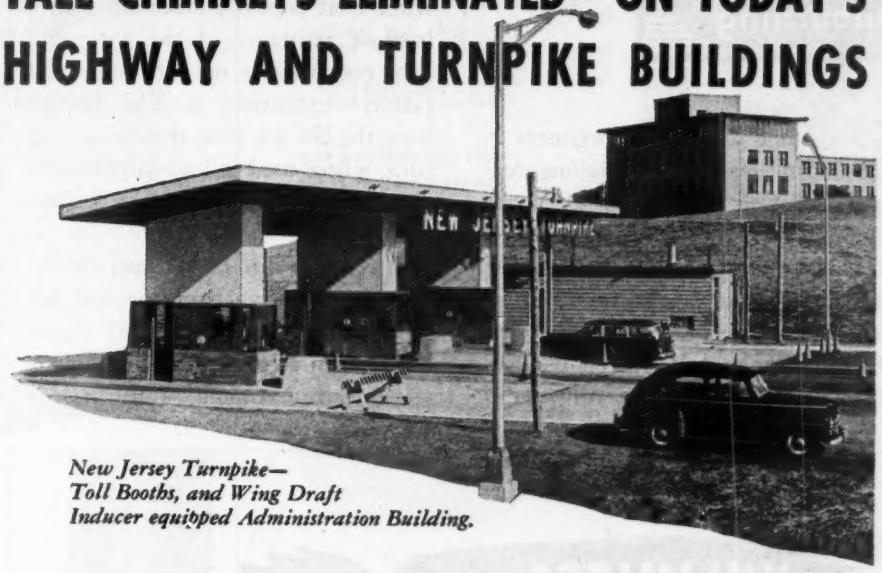
Also important: Certain burner manufacturers use special control wiring, peculiar to their burners. Obtaining the wiring diagrams for the electronic controls from these manufacturers simplifies greatly the problems of dealers modernizing the installations which include these burners.

In addition, many commercial-industrial oilburner manufacturers have learned vast amounts from their experiments, and their efforts to apply electronic controls to their burner models. These manufacturers can give a dealer tip-offs and special instructions of tremendous value—and eliminate trial-and-error work and experimental efforts the dealer may have to do, if he goes ahead without the help of the burner manufacturers.



Here's the 18-year-old burner which first misbehaved a few months ago because of delayed ignition—and then proved it has the same need for modern combustion-safety controls as new commercial-industrial burners have.

TALL CHIMNEYS ELIMINATED • ON TODAY'S HIGHWAY AND TURNPIKE BUILDINGS



New Jersey Turnpike—
Toll Booths, and Wing Draft
Inducer equipped Administration Building.

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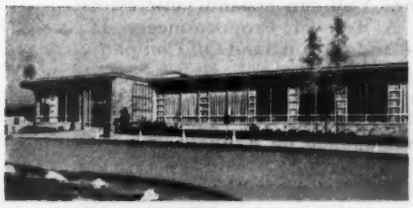
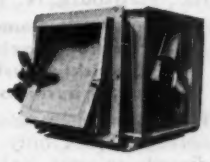
GIVE CORRECT DRAFT REGARDLESS OF WEATHER • BETTER HEATING • SAVE FUEL

Tally-Ho Motel at Valley Forge, Pa., just off Pennsylvania Turnpike.



One of the several Howard Johnson Restaurants on the New Jersey Turnpike. All are equipped with Wing Draft Inducers.

In motels, restaurants, maintenance and administration buildings on highways and turnpikes across the country Wing Draft Inducers are providing dependable boiler draft, independent of weather conditions. The short stacks for venting the gases are largely hidden and become entirely unobtrusive. Wing Inducers operate automatically, furnish the correct draft for efficiently burning gas, oil, or solid fuels.



Write for Bulletin I-57.

L. J. Wing Mfg. Co. 66 Vreeland Mills Rd., Linden, N. J.

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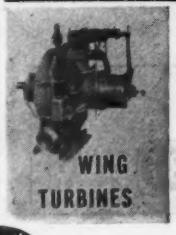
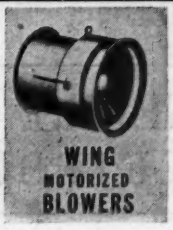
DRAFT INDUCERS

WING REVOLVING HEATERS

WING FRESH AIR SUPPLY HEATERS



WING TURBINES



WING MOTORIZED BLOWERS

FO-7

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Please send copy of Draft Inducer Bulletin I-57.
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Firm.....
Address.....
City.....Zone.....State.....

According to actual experiences in the field, dealers new at installing electronic controls need cautioning about the wiring from the lead-sulphide cell to the Protectorelay. The wiring to the cell must be kept separate from all other wiring. Separate conduit, ½" or ¾", must be used. Preferably use No. 18 wire; but for a short run, under 30 ft. in a pinch you can use No. 14 wire. That does not make sense on a basis of resistance of the wire—but here resistance is not the important factor, capacitance is. The heavier wire, the No. 14, gives trouble on long runs, where used in lead-sulphide cell circuits, because of its greater capacitance.

According to M-H instructions, the run of wiring from the lead-sulphide cell to the Protectorelay should not be greater than 50 ft., as the recommended maximum, and the run should be as short as possible. The two wires serving the lead-sulphide cell circuit should be "a twisted paid" —twist the wires together before pulling them through the conduit.

Don't use any wire but plastic-insulated wire for the cell circuit! Failure to follow that rule has caused trouble on dozens of installations. If because of electrical codes or other reasons you decide to use wire having high-temperature insulation, use Teflon-insulated wire. Don't use asbestos-covered wire!

Don't overlook the opportunity of a lifetime! You can expand your range of operations *without* additional tankage. A user of Proportioneers TC Blender for the past four years, Mr. Bert Copeland of Copeland Oil Company, Inc., Plattsburg, N. Y., writes:

"Our Proportioneers Blender has more than paid for itself . . . in tankage savings and by supplying intermediate grades of fuel oil, quickly, easily, and accurately. It has opened up a whole new class of business for us."

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- **36 installations now in service**
- **Extremely accurate**
- **High repeatability**
- **Available immediately**
- **Simple to install**

Install a Proportioneers TC Blender now to put more profit into next year's heating season.

Ask our sales engineers to provide you with complete data. Write Proportioneers, Inc., 543 Harris Ave., Providence, R. I.

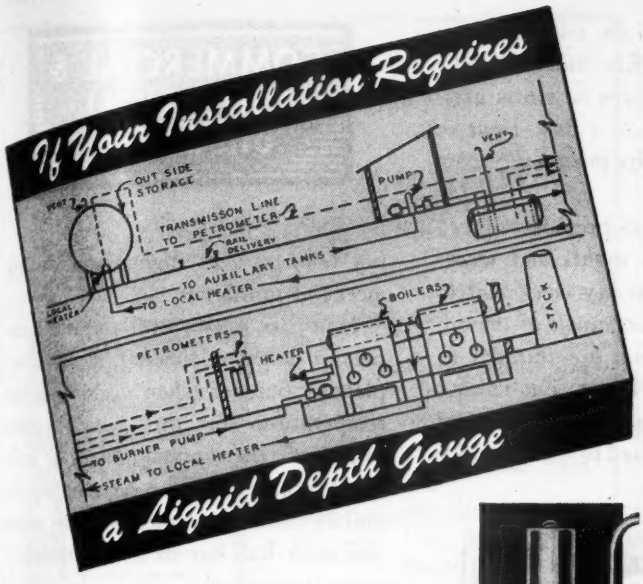
PROPORTIONEERS
DIVISION OF
B-I-F INDUSTRIES METERS FEEDERS CONTROLS

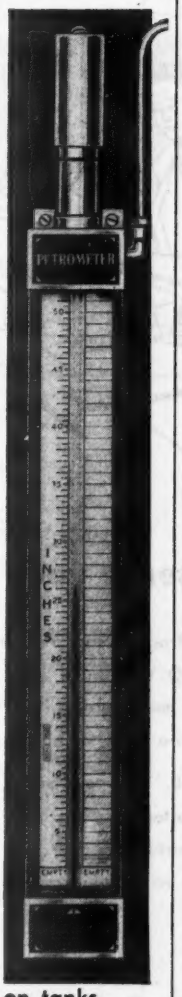
Electronics are standard

Developments in controls for commercial-industrial oilburners now have reached the stage at which electronic combustion-safety controls are standard for these burners. The dealer unable to install and service electronic controls is unable to install and service commercial-industrial oilburners.

Logically, every dealer interested in commercial-industrial oilburners should learn about electronic controls. To be in business today, he and his installation and service men must know much about such controls.

The dealers who can do this should go to work selling thousands upon thousands of electronic control set-ups for the already-installed high-capacity burners now safeguarded by old types of controls, which plainly and simply are not safe in terms of today's thinking. According to the thinking of the Underwriters' Laboratories, of the two big and powerful insurance organizations mentioned in this article, and of every other safety authority which has spoken up on the subject, commercial-industrial oilburners are safe only when working in conjunction with electronic controls. New commercial-industrial oilburners must be safeguarded by electronic combustion-safety controls. There's no escape from that fact. It was established by the Underwriters' Laboratories. Already-installed commercial-industrial oilburners need electronic controls for precisely the same reasons that these controls are needed for big burners being installed in 1957. If you haven't done this before, get into electronics now!





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Installation is easy—gauges can be installed on tanks above or below ground level and up to ¼ of a mile away. The tank assembly for the gauge can be installed even when the tank contains liquid. It can also be fitted in the tank separately to complete the tank work. The gauge can be connected any time later. Just tighten one simple connection and the job is finished.

FOR TANKS 20 INCHES TO 50 FEET DEEP. *Write for Bulletin PH.*

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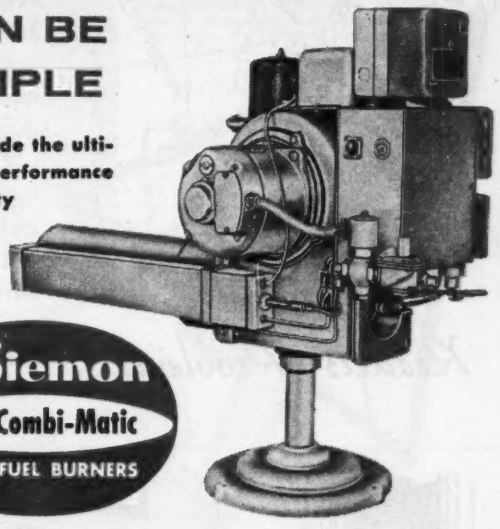

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9. **Completely Factory-Wired** and FLAME-TESTED, on the job performance assured with both fuels.
10. **Delivers Up to 3,500,000 BTU** no matter what the need, one of the 6 FGO series burners will fit the job, using all gases and light oil.

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Readers' Problems

COMMERCIAL & INDUSTRIAL oilburning

Q. We service an oilfired boiler heating a large office building. The burner starts and stops on steam pressure alone, 24 hours a day. Heat in rooms is regulated by pneumatic room thermostats.

Our problem is to provide reduced room temperatures nights and weekends, using a seven-day clock-switch.

The thermostat terminals of the oilburner control panel are shunted or wired together. These low-voltage thermostat terminals could be wired to the new system used to reduce building temperatures nights and during weekend shutdowns.

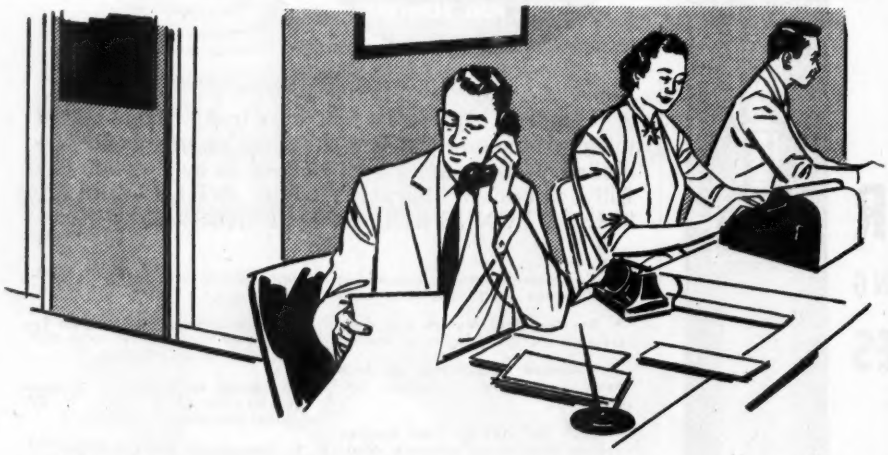
How can we control the air compressor without turning it off completely? Because when we reduce the temperature in the building the pneumatic thermostats will all be calling for heat and the air compressor will be running needlessly. Each room and each hall has its own pneumatic room thermostat.

In addition to the seven-day clock-switch with an on-off switch in it (this switch can be closed to shunt the low-voltage thermostat terminals when day heat should be maintained, and the burner starts and stops only according to boiler steam pressure) we could use an outside-temperature control system to guard against the building becoming so cold that water pipes freeze in it during coldest nights and weekends. Or we could use some sort of electrical room thermostat to prevent inside temperatures from becoming dangerously low. Any suggestions will be appreciated.

C. N. T., Richmond, Indiana

A. You ask how to control the air compressor without turning it off completely when low-level heat is maintained in the building nights and weekends. That suggests the air compressor serves things other than the heating system—things that need compressed air nights and weekends. If that's the case, find the air line that runs from the compressed air tank, or its pressure-reducing and pressure-regulating valve, to the room-thermostat system. Install a solenoid valve in this air line, and wire it to cut off the flow of air to all the room thermostats when low-level heat is being maintained.

If you use a seven-day clock-switch which has but one on-off switch in it, you could wire this switch to control a relay which has several sets of contacts. This relay could snap in when time comes to reduce the building temperature. One set of relay contacts



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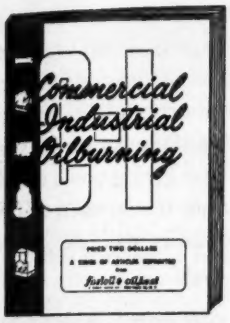
THE COMMERCIAL INDUSTRIAL OILBURNING BOOK



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requires no service—contacts never pit, burn or corrode.
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wired across the low-voltage thermostat circuit (of the oilburner control) could open. That would give control of the burner to a night room-thermostat, also wired across the low-voltage thermostat circuit. Another set of relay contacts could close, resulting in shutting of a normally-open solenoid valve in the air line to all the room thermostats. Stopping the flow of compressed air to the thermostats will result in opening of all the steam valves they control. Still another set of contacts in the same relay could be wired to keep idle the compressor motor, if compressed air is not needed nights and weekends.

When the seven-day clock-switch drops out this relay to shift to day heat on any morning, Monday morning for example, it will sequence properly the operation of the compressor. All the pneumatic steam valves will be open because the building temperature is low. The compressor will have time to build up air pressure in its tank before the rooms become warm and the pneumatic thermostats and steam valves need air pressure.

Although for simplicity the use of a night room-thermostat is described above, far better results will come of installing a large-building heat-control system affected by outside weather, to control the oilburner nights and weekends. The manufacturer of this system will help you by giving you a complete wiring diagram, if you need this. Several manufacturers make excellent systems of this type.

Q. I am converting a steam boiler from coal to oil using a pressure burner with twin ignition and twin nozzles at 6.0 gph each, 80° angle.

What sort of a safety control is best instead of the usual stack control for a domestic burner? Also should the angles of the nozzles be 80°? This burner will use No. 3 oil.

What refractory company puts out a reference book on sizing combustion chambers, their construction, etc. for oilburners firing 10 gph and upwards?

S. R., Twin Falls, Idaho

A. See the article "Standards for Safety," in the March 1956 issue of FO&OH, to learn about the new UL safety-control requirements for a burner that fires at the 12 gph rate you will use on this job. The manufacturers of the burner and of the safety controls you use regularly can give you complete details about which safety-control system to use on this job, which must have a trial-for-ignition period of 30-second maximum accordingly to UL.

Check on suitable, available safety controls made by Minneapolis-Honeywell, and on Fireye controls offered by the Combustion Control Division, Electronics Corporation of America, 718 Beacon St., Boston, Mass. Check also on the PerfXray control system made by General Controls Co., Skokie, Ill.

The "B&W Firebox Handbook" gives complete details of the design and construction of fireboxes for up to 15 gph; you can obtain a copy at no charge from The Babcock & Wilcox

COMBUSTION EQUIPMENT
ENGINEERED By THE WEBSTER ENGINEERING COMPANY

Another first by WEBSTER

Flame Retention
RING GAS BURNER

Through a *new* application of an old basic principle WEBSTER now offers unequalled stability in an non-premixing ring gas burner.

Presently packaged as Series H, Forced Draft for Gas, Rotary Oil or Combination this revolutionary development will soon be available in other variations.

Write for Series B13 literature.

Some Territories Open

The WEBSTER ENGINEERING Company

TULSA 16, OKLAHOMA

Division of SURFACE COMBUSTION CORPORATION, Toledo, Ohio

SAFETY SWITCH
THAT SHUTS OFF FUEL IF BLOWER FAILS

Protection for Oil Burners • Industrial Ovens • Power Gas Burners

WHAT IT DOES

The Dewey Safety Air-Flow Switch protects against opening of fuel valve until fan is up to speed.

Insures purging of furnace before fuel valve opens. Closes fuel valve if fan slows up or stops. Flashes danger signal if fan or fuel stops. Safeguards against danger from gas fuel failure when used with safety shut-off valve.

Thousands sold. Factory Mutual and Underwriters Laboratories Approved. Standard equipment on leading products. Write for prices and literature.

DEWEY GAS FURNACE CO.

100 E. Baltimore Detroit 2, Mich.
Canadian Distributor: Ontor Ltd.
12 Leswyn Road, Toronto 10, Ont.

FREE CIRCULAR

Dewey SAFETY AIRFLOW SWITCH

Preferred Anti-Syphon Valves
Meet Every Code

Non-Adjustable—Angle Type for convenient installation. Heavy Bronze Construction. Approved by Underwriters' Labs., Inc.

TYPE A—1¼" to 3". Maximum capacity to 1000 G.P.H., with #5 and #6 oil.

TYPE B—¾" and 1". Maximum capacity to 100 G.P.H., for #1 to #5 oil.

TYPE C—⅜" and ½". Maximum capacity to 30 G.P.H. of #1 to #3 oil.

Write for Bulletin 1619

PREFERRED UTILITIES MFG. CORP.
1860 BROADWAY Dept. OH NEW YORK 23, N. Y.

GABRIEL...*Builders of Fine Boilers*

...For MANUFACTURING, PROCESSING and SERVICE INDUSTRIES...

● SCOTCH MARINE ● TWO PASS FIREBOX ● VERTICAL TUBE ● TUBELESS ● HORIZONTAL RETURN TUBE.

15-225 lb. Pressures...for Oil, Coal, Hog Fuel and Gas Fuels

Write For Name of Nearest Distributor

GABRIEL BOILER CO.

1428 N. W. 14th AVENUE • PORTLAND 9, ORE.

KNOWN THE WIDE WORLD OVER — RAY BURNER — 10,000 RAY BURNERS NOW OPERATING IN ALL PARTS OF THE WORLD

A Mechanical Masterpiece

That

Burns Cheapest Grades of Fuel Oil

Made in over 30 different sizes and shapes
See Our New BABY BURNER For Homes
In Full or Semi-Automatic Types

DISTRIBUTORS AT

Boston	Jacksonville	New Orleans	Des Moines	Chicago
New York	Providence	Kansas City	El Paso	Vancouver
Philadelphia	Hartford	St. Louis	Minneapolis	Toronto
Baltimore	Bridgeport	Omaha	Great Falls	Los Angeles
Washington	Cleveland	Dallas	Seattle	Sioux City
Atlanta	Detroit	Houston	Portland	Mexico City

W. S. RAY MANUFACTURING CO.

722 So. Michigan Ave., Chicago — 120 New Montgomery St., San Francisco, California

The above ad appeared in the October, 1922 issue of FUEL OIL magazine—one of the first burner ads ever run in the magazine!

THEN, AS NOW, THE WORLD LEADER IN OIL, GAS AND COMBINATION GAS-OIL BURNERS

Ray Burner Company

1301 San Jose Avenue, San Francisco, California
629 Grove Street, Jersey City, New Jersey

RADIANT UTILITIES CORPORATION — Manufacturers of PRECISION PRODUCTS for HOME • FARM INDUSTRY

RADIANT
Sets the pace

Automatic Oil Burners

ELECTRONICALLY CONTROLLED

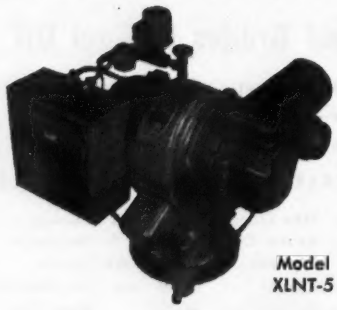
- Electronic Combustion Safe Guard Controls
- 3 to 30 G.P.H. capacities
- Fully mounted & wired
- Less controls...more protection... greater flexibility
- Safe start—no puffs—no flare back—no unburned oil
- Successful record of installations

The speed and sensitivity of electronics makes possible immediate recycling along with fast and positive response. The Radiant Electronically Controlled oil burners are designed to meet the safety and protection required for industrial and commercial use.

Write for complete literature on all Radiant products.

RADIANT UTILITIES CORP.
8817 18th Ave., Brooklyn 14, N. Y.

Weatherall
OIL BURNERS
Sell Easier & Profit You



Model XLNT-5

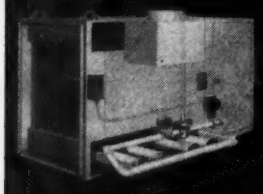
Here's why!

- Uses a fuel costing 30 to 40% less.
- Uses a fuel containing more heat units per gallon.
- Underwriters Laboratories approved for #5 fuel oil.

Write for details today

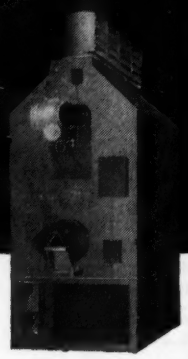
WEATHERALL ENGINEERS INC.
478 Smithfield Ave.,
Providence 4, R. I.

NEW!
JACKSON & CHURCH



GAS SUSPENDED SERIES

DIRECT FIRED SERIES



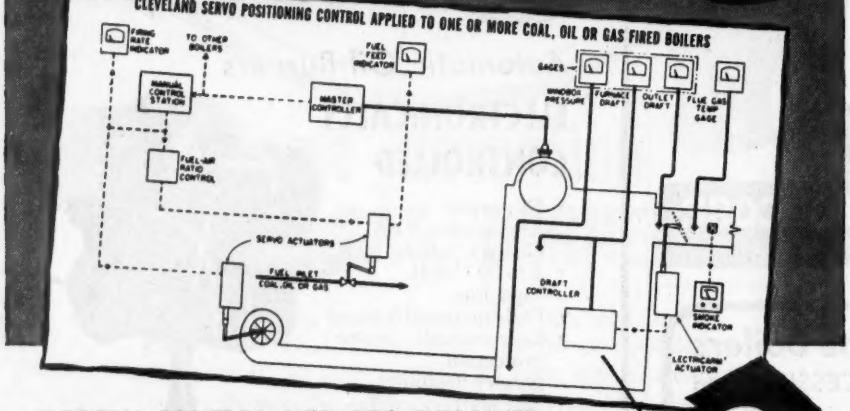
J-C

WARM AIR FURNACES

May we serve you with your furnace needs—your J & C distributor

E. E. SOUTHER IRON CO.
1952 Kienlen Avenue
St. Louis 20, Mo.

Free DETAILED SYSTEMS FOR COMBUSTION
AUTOMATION
NO 3 OF A SERIES


CLEVELAND SERVO POSITIONING CONTROL APPLIED TO ONE OR MORE COAL, OIL OR GAS FIRED BOILERS
MASTER CONTROLLER
SERVO ACTUATORS
DRAFT CONTROLLER
SMOKE INDICATOR

MODERN CONTROL METHODS EXPLAINED WITH SCHEMATIC ILLUSTRATIONS

Number 3 of a series of guides to "Automation in Combustion", this FREE Manual contains engineering data for solving combustion problems. Tells how fuel and labor savings, smoke control, added refractory and boiler life, protection against fumes and explosions are designed into Modern Combustion Control Systems.

WRITE TODAY
for FREE Manual (No. 3) plus "Control Fundamentals" booklet.

CLEVELAND CONTROLS
1111 Brookpark Rd. • Cleveland 9, Ohio

COMBUSTION CONTROL SYSTEMS
INDICATING INSTRUMENTS
AIR SAFETY SWITCHES
PANEL CONTROL CABINETS

Co., Refractories Division, 161 E. 42nd St., New York 17, N. Y.

On starting the burner, use smoke-testing and CO_2 instruments to find out which nozzle angle and spray pattern produce a clean flame of the highest efficiency obtainable.

Q. The owner of a high-pressure steam boiler, serving a laundry, increased his load. I switched from a burner and firebox for 25 gph, up to a new burner and firebox for 45 gph. That was two years ago and it worked. But the stack temperature is 820°F. The CO_2 is 11¼%.

Now he is increasing actual load again about one-third. He thinks the boiler will "get by" if either I install an induced-draft blower, or replace the ordinary insulation on the boiler by 2" rock wool or equal, or do both things if the one tried first is not enough. Should I go along with his ideas?

S. T. Lakwood, Ohio

A. No, not with the boiler excellently fired now and already producing a stack temperature reading above 800°F. What he needs is a new boiler that will produce about 550°F. or lower stack temperature fired at the approximate 60 gph needed for the increased load he will have on it.

Q. Assume that on a No. 6 oil installation a booster pump never will receive oil below 125°F. because of heater in input line to the pump. Is it all right to install a direct-drive gear pump, same as you'd use for light, domestic fueloil?

O. C. A., Anderson, Ind.

A. Probably not, because even at 125°F. the viscosity of the No. 6 oil will be much greater than the viscosity of No. 2 oil. You might get by, however, if the pump is used only occasionally, and if you drive it by an 1150 rpm motor instead of a 1750 rpm motor. Play safe by presenting the problem to the pump manufacturer.

Much of the credit for our many satisfied customers and oil heating's progress in general belongs to that great force of skilled workmen who maintain and service the nation's oil heating equipment. These unsung heroes are indispensable to oil heating's success. Theirs is the task of keeping oil burners operating efficiently, of keeping the heating oil user satisfied. It is a privilege to be associated with them. Gulf pledges clean-burning heating oils of the highest quality as its major contribution to the great team effort of winning America's homemakers over to modern automatic oil heating.

GULF

SOLAR HEAT
heating oil

GULF OIL CORPORATION

Activities of local and national industry associations are reported monthly in this department. Secretaries are invited to send reports of their Group's activities to the editor by the 5th.

Jersey Fueloil Distributors have Meeting in Asbury Park

THE ANNUAL CONVENTION of the Fuel Oil Distributors Association of New Jersey was held May 15-17 at Asbury Park, N. J.

Following the business meeting, speakers at the Thursday session were as follows: Albert G. Laverty, "Heating and Cooling by Oil"; Kenneth Wells and Herbert Bailey discussing the functions of the Oil Information Committee.

Eugene Barling, United Advertising Corp., presented Robert M. Crane, chairman, Oil Heat Council, an award for outstanding promotion of oil heat in New Jersey.

A panel discussion on Oil Heat vs. Gas was moderated by Robert Gray who explained the work of Oilheating Market Reports. Describing promotional activity in various markets were Robert Myers, Maryland; Bob Crane and Ellsworth Harris, New Jersey.

Also featured as speakers were Robert B. Meyner, Governor of New Jersey, and Dwight P. G. Palmer, State Highway Commissioner.

Association trustees named the following officers for the coming year: R. G. Matthews, Orange, president; Herman M. Mendell, Sparta, vice-president; Kenneth W. Grace, Wildwood, secretary; and Walter Harnisch, Irvington, treasurer.

Elected to the board of trustees were Richard M. Morgan, Princeton; David M. Foster, Toms River; Kenneth Grace, Willard Hagerman, Asbury Park; Willard Hedden, Dover; Charles Jacobs, Union City; Gordon S. Reinauer, Lyndhurst; and Ernest Studerus, Kearny.

Wisconsin OHI has Meeting at Milwaukee Press Club

A FILM on service was shown to members of the Oil-Heat Institute of Wisconsin, Inc., when they met at the Milwaukee Press Club for a dinner meeting, May 23.

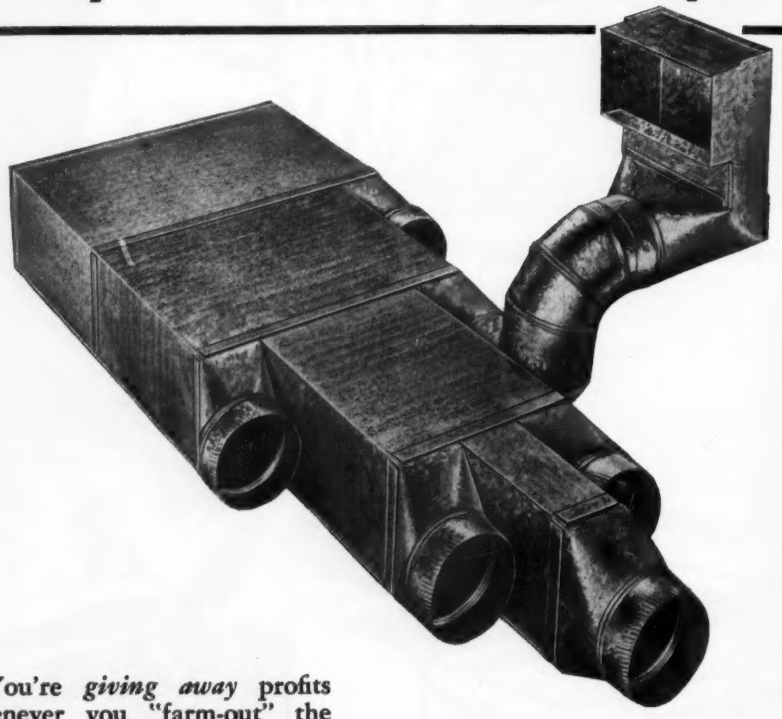
According to Lavern Schaetzel, president, the current membership of the group is the highest in its history.

Maine Dealer Association has Annual Convention on June 20

MEMBERS of the Maine Oil & Heating Equipment Dealers' Association met at the Martha Washington Inn in Winthrop for their annual meeting on June 20.

During the afternoon John Stevens, Booma-Breed, Inc., spoke on fueloil delivery costs; Butler Scott had as his topic, "Does a Service Department pay?" Others on the program were Fred Whetton, Whetton Oil Co., and William Hubner, Ethyl Corp., whose talks were on budget planning and

Keep ALL the Profits on your next warm-air job!



• You're *giving away* profits whenever you "farm-out" the ductwork on your furnace installations. You can easily handle the complete job yourself with "Snap-Rite" prefabricated ducts and fittings. You don't need a sheet-metal shop or special equipment—the patented quick-locking feature of "Snap-Rite" ducts and fittings makes them easy to assemble.

Shown above is our most popular and simplified No. 160 line which consists of a square main trunk with round branch lines. This is accomplished through the use of our standard stock trunk pipe with "pre-notch" feature and our No. 160 round branch takeoff as illustrated, effecting a reduction in size of main trunk at each branch. This method produces a neat air-tight installation, low in cost and easy to balance.

Write for our catalog now and keep ALL the profits on your NEXT job!

GRAY METAL PRODUCTS, INC.

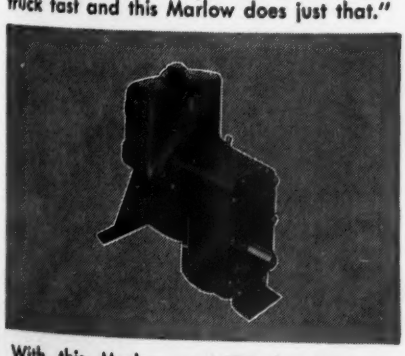
P. O. Box 1449 Rochester, N. Y.

Marlow truck pumps operate quietly and maintain their original high capacity indefinitely.

High Capacity Pumps Speed Oil Delivery

MODERN EQUIPMENT . . . DRIVER INCENTIVES . . . CUT DELIVERY COSTS 10%
FOR BOOMA-BREED, INC., LYNN, MASSACHUSETTS

Says top driver, John Cosentino, "To make money, you've got to get the oil out of the truck fast and this Marlow does just that."



With this Marlow centrifugal pump, an impeller rotates freely in the liquid, and eliminates maintenance caused by wearing surfaces, shock loads, and vibrations.

DELIVERING seven million gallons of fuel oil annually with eleven trucks keep men and trucks on the go. To accomplish this, Roland Booma and William Breed operate a unique driver incentive plan and supply their men with the best equipment obtainable.

Booma-Breed's new truck, with a Marlow pump, is now being tested by their top driver, John Cosentino. John is very conscious of the pump on his truck since this is the part that moves the oil. He generally operates the pump at 110 pounds pressure and delivers 80 gallons per minute through 125 feet of 1¼" hose. In some cases, he has run as high as 160 pounds with a delivery rate of 120 gallons per minute.

Ronald Kinville, in charge of maintenance, is pleased with the vibrationless operation of the pump. He says there is noticeably less strain on the engine while the pump is operating and less shock-load on gauges, meter, and piping when the nozzle is opened and closed. John Stevens, their Oil Department Manager, thinks the pump will have better customer acceptance because of its quiet operation. At the same time he believes that it will allow them to distribute oil at less cost from the standpoint of truck maintenance, trucks in operation, and drivers required.

If you are interested in reduced delivery costs, investigate this modern method of handling fuel oil. Complete information on Marlow pumps and the name of your nearest dealer can be obtained simply by writing Marlow Pumps, Midland Park, N. J. Ask for Bulletin PM-06.

Marlow PUMPS

MARLOW PUMPS
Division of Bell & Gossett Company
MIDLAND PARK, NEW JERSEY
Morton Grove, Illinois **Longview, Texas**
In Canada: PUMPS & SOFTENERS LTD., LONDON, ONTARIO

fueloil additives respectively.

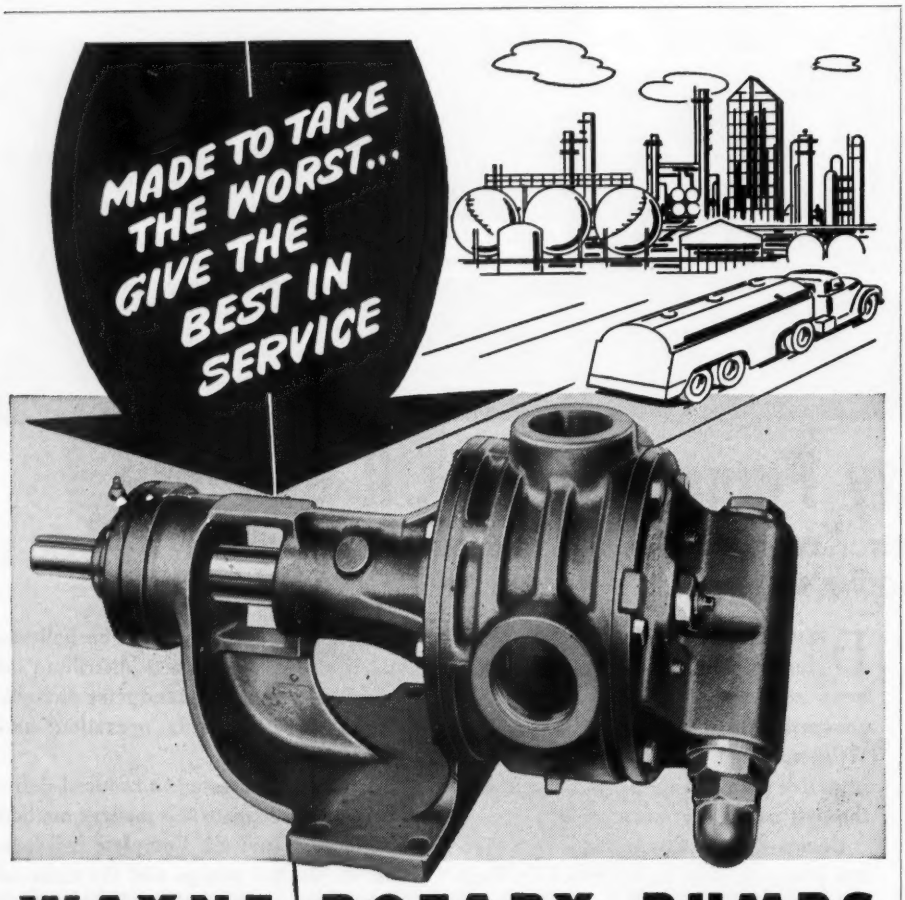
Following the banquet, Robert Gray, FUELOIL & OIL HEAT, was the speaker. H. Allen Mapes was chairman of the program committee; and Mrs. George M. Wingate was the head of the committee arranging entertainment for the ladies.

Philadelphia Fuel Conference to concentrate Budget on TV

UNDER THE DIRECTION of its new advertising agency, Aitken-Kynett Co., the Greater Philadelphia Fuel Conference has begun a series of spot announcements on a local TV station.

A 30-day period of study during which all use of newspaper and radio media was discontinued preceded the television decision. However, as soon as re-designed improved programs can be set up and funds are made available both newspaper and radio will be used.

The group has hired Action Associates, public relations firm, to develop a program to carry the oil heat story to consumers.



WAYNE ROTARY PUMPS

In bulk plants . . . on trucks Wayne Rotary Pumps have proved their unsurpassed qualities to stand up and take it. They are ruggedly built with radial thrust bearings and rigid base to prevent distortion or misalignment. Special bearing seals keep out dirt. Exclusive Wayne rolling gear tooth design assures greater capacity, higher speed and more compact size.

You can get a Wayne Rotary Pump to fit every pumping need —capacities from 35 to 300 GPM for pumping volatiles to asphalts. Write for selection chart and application handbook to The Wayne Pump Company, Salisbury, Maryland, Fort Wayne, Indiana, Toronto, Canada.

GREATER CAPACITY
•
QUIET OPERATION
•
LONGER LIFE
•
EASIER INSTALLATION

Wayne

Western Massachusetts Council has Horan as meeting Speaker

RAY HORAN was the speaker at the May meeting of the Oil Heat Council of Western Massachusetts in Springfield. Horan is a consultant to one of the control companies and is well known in the heating field.

He described his success formula as applied to increasing oilheating equipment sales.

Jim Grimaldi was chairman of the committee in charge of arrangements for the meeting.

Central Supply Association Head named to Council Board

W. A. FITZPATRICK, president of the Central Supply Association, has been appointed to the board of directors of the Better Heating-Cooling Council, New York.

The association is the first plumbing-heating wholesaler group to back the Council and participate in its industry-wide promotion campaign for liquid heating-cooling.

Dickinson now general Manager of Toronto Oilheating Chapter

RICHARD B. DICKINSON has been appointed general manager of the Toronto Chapter, Oil Heating Association, according to Fred Birch, president.

He will be responsible for the continuance of the industry program initiated by the chapter, and brings to the job advertising and public relations experience.

Better Heating-Cooling Council issues quarterly Publication

FIRST ISSUE of *The BHC Bullet*, a newsletter to link industry salesmen with the national promotion campaign for liquid heating and cooling systems, has been published by the Better Heating-Cooling Council. The newspaper-type publication, which will be issued quarterly and mailed to 5,000 salesmen and other field representatives of Council members, carries brief articles, news tips and sales success stories to help increase sales of liquid heating-cooling equipment.

In announcing the new publication, BHCC Executive Director Franklin

picture of a fuel customer

(about to become an "ex")

Customers who run out of fuel may run out on you—fast. Degree-day or calendar-day delivery scheduling the Burroughs Sensimatic way, keeps them coming back through *assured* automatic fuel delivery. And how it slashes your accounting costs!

Customers stay happy because they *always* get fuel before they need it. Your trucks make maximum fuel delivery per stop, are always routed economically. Costly emergency deliveries are practically eliminated.

The Sensimatic automatically streamlines most of your accounting and billing, too. It simultaneously prepares customer statements and delivery records, shows location of customer delivery schedules, automatically figures and records next delivery day, accumulates total fuel delivered by each driver. No time-wasting figure rehandling, no need to make duplicate records.

See how much *degree-day or calendar-day scheduling the Burroughs Sensimatic way* can help your business. Call our nearby office, or write Burroughs Corporation, Detroit 32, Michigan.

"Burroughs" and "Sensimatic" are trademarks

Burroughs B

Burroughs Sensimatic

fuel oil & oilheat

Greene said, "It will act as an industry-wide communications network to keep front line salesmen informed of the Council's promotional projects and how to exploit them locally."

Appliance Manufacturers have Convention in Cincinnati, O.

EIGHTY EXHIBITORS displayed their lines at the 25th Anniversary Convention Exhibit sponsored by the Institute of Appliance Manufacturers in Cincinnati, O., June 3-5.

Among the speakers during the three day session were Spencer Shore, Eagle-Picher Co.; Harold B. Wess, American University; Stanley E. Fowler, Geo. D. Roper Corp.; Richard E. Paret, American Iron and Steel Institute; and Chet Huntley, NBC-TV commentator.

The Oilheating Division met June 4 with W. H. Hohmeyer, Detroit Controls Corp., presiding. Marc Resek, Perfection Industries, Inc., discussed the future of the oil space heater.

Sales and inventory trends; the Serviceman's Handbook; the speakers' bureau on vaporizing oilburning equipment; and trends in ordinances affecting oilheating were topics of discussion at the meeting.

Neustadt re-elected President of Chicago Burner Association

THE BOARD of directors of the Chicago Oil Burner Association recently re-elected the three constitutional officers that served last year.

President of the Association is John Neustadt, Neustadt Fuel & Supply Co.; vice-president, Regis L. Plante, Oil Burning Engineers, Inc.; and treasurer, Joseph J. Zang, Leahy Heating & Cooling Corp.

Hartford Home Heat Council has Panel at annual Meeting

A PANEL DISCUSSION on service policy was heard at the recent annual meeting of the Hartford Better Home Heat Council, Inc., Hartford, Conn.

Also on the program was Fred S. Burroughs, Oilheating Market Reports, who analyzed how electric heating will effect the fueloil market.

Burner School scheduled July 22 by N. C. Jobbers

A GENERAL COURSE of instruction on oilburners has been scheduled for the week of July 22-26, at N. C. State College, Raleigh, by the North Carolina Oil Jobbers Association.

The course will be similar to that of the previous schools offered by the group in April with more emphasis on laboratory sessions.

John Leslie elected President of Fluid Controls Institute

THE SPRING MEETING of the Fluid Controls Institute, Inc., was held at Greenbrier, White Sulphur Springs, W. Va., and John S. Leslie, Leslie Co., was elected president.

Other officers named at the meeting are vice-presidents, Dean E. Madden, A. W. Cash Valve Mfg. Corp.; and Marshall B. Taft, Minneapolis-Honeywell Valve Division; treasurer, Paul K. Rodgers, Jr., Skinner Chuck Co.; and secretary, Edward J. Glinske, Jr., Cochrane Corp.

From the laboratories of Commercial Filters Corporation comes the new Honeycomb Filter Tube — at a new low price. Designed especially for today's oils, the new Honeycomb Filter Tube assures trouble-free filtering efficiency. Produced by new methods of automation, it is available at a substantial price reduction. Look for the *new* green Honeycomb Filter Tube in the *new* green wrapper at the *new* low price. You'll be dollars ahead.

Micro-Fine Filtration for Low Cost Clarity

COMMERCIAL FILTERS CORPORATION
MELROSE 76, MASSACHUSETTS
Plants in Melrose, Massachusetts and Lebanon, Indiana

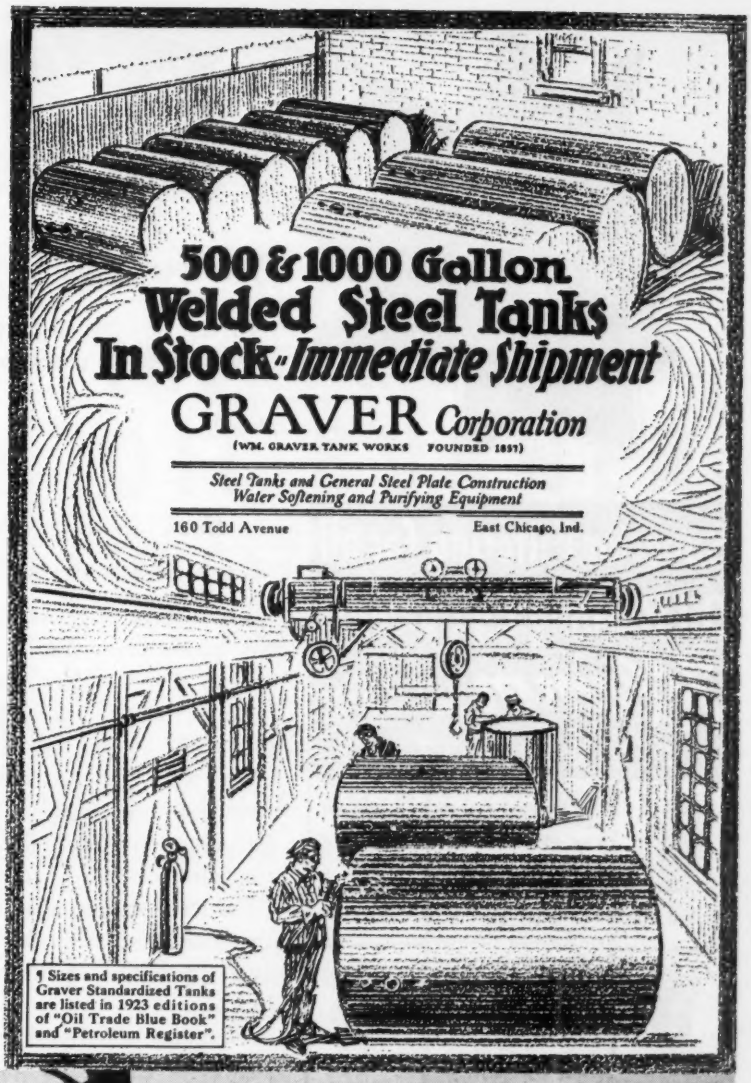
When this ad appeared
in the first issues of
FUELOIL & OIL HEAT

IN 1922...

GRAVER WAS 65 YEARS OLD
and the recognized leader
in the development of
modern tank fabrication
and welding techniques

IN 1957...

AFTER 100 YEARS, GRAVER
continues to be the leader
in the fabrication of all
types of tanks, such as the
40,000 gallon underground
fuel oil tank below, one of
five built for a housing
development.


500 & 1000 Gallon
Welded Steel Tanks
In Stock—Immediate Shipment
GRAVER Corporation
(WM. GRAVER TANK WORKS FOUNDED 1857)
Steel Tanks and General Steel Plate Construction
Water Softening and Purifying Equipment
160 Todd Avenue
East Chicago, Ind.
† Sizes and specifications of Graver Standardized Tanks are listed in 1923 editions of "Oil Trade Blue Book" and "Petroleum Register".

1857-1957 GRAVER Our 100th Year

Building for the Future on a Century of Craftsmanship in Steels and Alloys

GRAVER TANK & MFG. CO., INC.

EAST CHICAGO, INDIANA • NEW YORK • PHILADELPHIA • EDGE MOOR, DELAWARE
PITTSBURGH • DETROIT • CHICAGO • TULSA • SAND SPRINGS, OKLAHOMA
HOUSTON • NEW ORLEANS • LOS ANGELES • SAN FRANCISCO • FONTANA, CALIFORNIA

IT'S HERE!

The New Delavan TYPE "W" all purpose nozzle

At last, a truly **all purpose** premium nozzle designed to help the serviceman where his problems are greatest — in the small size burners.

DELAVAN *Manufacturing Co.*
WEST DES MOINES, IOWA

Superior Filtering for all Oil Burning Equipment!

Klemm MICRO
FUEL OIL FILTERS

FF-430 U/L

There's a Klemm Fuel Filter for every standard burner using No. 1 and 2 fuel oil. Your choice . . . metal or glass bowl. "Millions Since 1932."

1. Practically no flow resistance—true depth filtration.
2. Simplified construction for simplified service . . . no tools required.
3. Eliminates nozzle and line clogging for increased burner efficiency.
4. All parts . . . Hi-Chrome and Brushed Zinc.

FF-430G

PK-150 U/L

JR-60

chemistone
Controlled porosity element assures sparkling, crystal-clean fuel oil every minute. Traps water . . . removes dust, rust and scale.

Klemm PRODUCTS

Division of
KLEMM AUTOMOTIVE PRODUCTS COMPANY
1722 North Damen Avenue • Chicago 47, Illinois
EXPORT: Guiterman Co., Inc., New York 4
CANADA: Elgee, Ltd., Toronto

Back in the Thirties

(*Begins on page 50*)

"If you have any trouble putting it out, please phone me."

Back at the building, the owner and tenants greeted me pleasantly and thankfully in the hall. Radiators already were sizzling, they said, and never had heat come up so fast after an oilburner breakdown. I unlocked the first-floor door I had locked before I had left for the firehouse—the door that gave access to the basement stairs, and which the owner always kept locked.

Beaming acknowledgement to the thanks of the owner and tenants, I nodded at the large thing in my arms, the big fire extinguisher which I had covered with a rain-coat I always kept in my car for such an emergency, and explained, "Some parts here for the heating system."

Then I hurried through dense smoke to the boiler, and put out the oil flames flickering over the oil-soaked asbestos.

Ask any man who worked on burners in the 1920's and 1930's if such an episode as just described was not part of our everyday work pattern in those days. He'll reply by telling you of one of his experiences which really was a hair-raiser.

We were working towards, and looking towards, such safe operation of oilburners, particularly high-capacity burners, as we now have arrived at in 1957.

The oldtimers, who were hard hit when oldtime oilburners and controls acted their nastiest and wackiest, are the men most appreciative today of modern, safe oilburners and oilburner controls.

❖

Frank Z. Carroll has been elected vice president in charge of supply and transportation, Metropolitan Petroleum Corp., Oradell, N. J. Another appointment within the company names W. S. *Fenton* assistant to the president. Fenton had been assistant supervisor of fueloil sales for Tidewater Oil Co.

PERFECTAIRE

Use PERFECTAIRE
LARGER OIL FIRED FURNACES

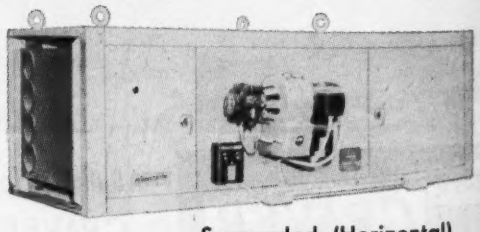
Perfectaire capacities continue to increase when others stop. Larger furnaces give larger profits.

OPEN TERRITORIES FOR DISTRIBUTORS

OIL-FIRED FURNACES

Floor Mounted
75,000 to 2,000,000 BTU

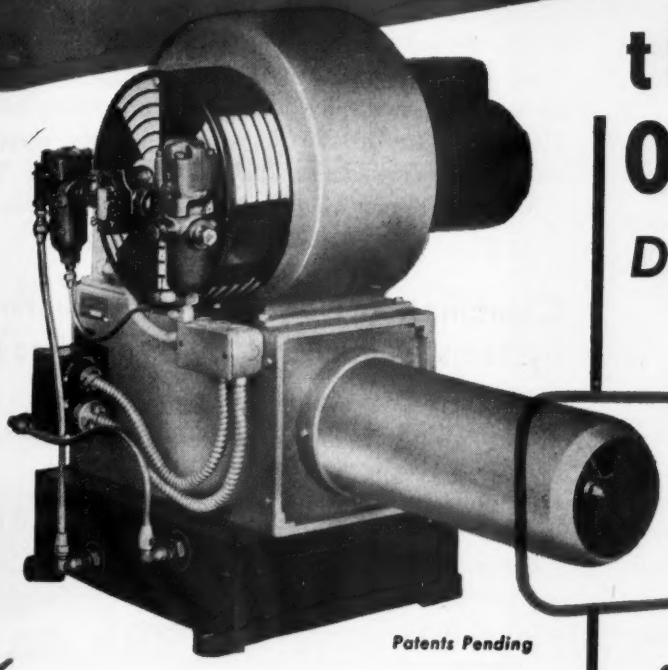
Hi-Boys
75,000 to 345,000 BTU



Suspended (Horizontal)
75,000 to 1,000,000 BTU

AIR CONDITIONING ENGINEERING CO. CAMBRIDGE, 41, MASS. KI 7-2700

BIG SAVINGS YOUR CUSTOMERS WILL CERTAINLY WANT



Patents Pending

the NEW #5 OIL BURNER

DRASTICALLY CUTS FUEL COSTS

Converts #5 and #4 Oil to Burn Efficiently as #2 Oil.

✓ ***APPROVED*** **for #5 and #4 fuel oil by Underwriters' Laboratories, Inc.**

✓ ***BEST BET*** **for cutting fuel bills in apartment houses, schools, churches, factories and heating processes by using lower priced, higher Btu fuel oil.**

Write for Bulletin and Prices

Inquiries invited from Boiler and Furnace Manufacturers

- **Built-in Thermax Converters reduce heavy oil to light oil**
- **As quiet as a #2 Oil Burner**
- **Easy to install and service**
- **No boiler front plate required**
- **No complicated parts**
- **Electric ignition— no gas lines required**
- **Can use existing piping in practically all cases**
- **3 Sizes—3 to 25 G.P.H.**

SUN-RAY—FAMOUS THE WORLD OVER FOR QUALITY AND ECONOMY

Models for Every Heating Need in Sizes from 0.5 to 22 g.p.h.

SUN-RAY BURNER MANUFACTURING CORPORATION

139-22 Queens Boulevard, Jamaica 35, New York

Distributed in Quebec and the Maritime Provinces of Canada by Economic Oil Burner Co., Ltd., 5721 St. Denis St., Montreal, Quebec and in British Columbia by Fred. Welsh & Sons, Ltd., 733 Beatty St., Vancouver, B. C.

New Products

Each New Products item has an identifying number. If you want more information on any equipment described here send the coupon on page 122 to FUELOIL & OIL HEAT, *2 West 45 St., New York 36, N. Y., and identify the product by circling its number on the coupon.*

Bryant central system Airconditioner is smaller than many window Units

A CENTRAL system airconditioner, Bryant's self contained Model 556, is smaller than many window units, yet is available in two sizes—19,000 and 30,000 Btu/hr, both completely factory assembled.

The 556 condenser is air-cooled with a unique arrangement enabling the 200-556 to condense its own water out of the air it dehumidifies. This distilled condensate is distributed over the hot condenser coil by a slinger wring, increasing efficiency as well as cooling capacity.

A completely waterproof unit, the 30,000 Btu/hr 556 can be installed out-of-doors adjacent to a foundation wall. Ductwork then ties the self-contained unit to the furnace system, or it can distribute air directly to the space that is to be airconditioned.

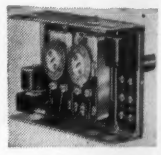
Large filter on the 556 is the throw-away variety. Top or side blower discharge is possible with the 556. The larger size has a rated air delivery of 1,000 cfm against an external static pressure of .05 inch water column. The smaller size has air delivery of 600 cfm against an external static pressure of .2 inch water column.

Made by: Bryant Manufacturing Co., Indianapolis, Ind.

Circle E1 on coupon, page 122

Combination Controls for hot water Systems announced by White-Rodgers

A NEW LINE of combination hot water controls is being made by White-Rodgers. Called the 840's, the group includes circulator-relay and temperature controls in various combinations, such as relay with high limit or low limit-circulator controls; and relay with triple action control, which combines all three. They are designed for



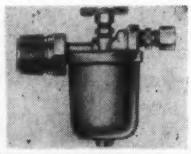
SETTE

Microstone® Element FILTERS Sell

...the most effective fuel oil filter yet devised! SETTE Microstone Element Filters boost oil burning efficiency for all units. Exclusive ceramic element stops all particles down to 1/10,000 of an inch! Give your customers *proved economy!*

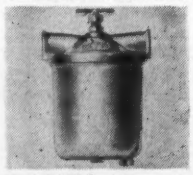
*SAVES cost of fittings!

Call your jobber—or order direct



*Model F-10B: Saves cost for small to medium ranges, heaters, furnaces, etc.—installs on tank or drum.

*Model Z-1: Screws easily into *all* control valves...small to medium installations.



Model MS-3: Unequalled filtration for medium to large units; will handle 100,000 BTU's. Easily installed at tank or anywhere in line.

SETTE PRODUCTS COMPANY
1241 High Street
Oakland 1, Calif.

Please send the following, postpaid:
___doz. Model F-10B Filters ___doz. Model Z-1 Filters ___doz. Model MS-3 Filters
Name
Address
City State

EXPORT AGENT—OCEANIC EXPORT COMPANY
400 Montgomery Street • San Francisco 4, California

KNOWN THE WIDE WORLD OVER

RAY BURNER

10,000 RAY BURNERS NOW OPERATING IN ALL PARTS OF THE WORLD

A Mechanical Masterpiece

That

Burns Cheapest Grades of Fuel Oil

Made in over 30 different sizes and shapes
See Our New BABY BURNER For Homes
In Full or Semi-Automatic Types

DISTRIBUTORS AT

Boston	Jacksonville	New Orleans	Des Moines	Chicago
New York	Providence	Kansas City	El Paso	Vancouver
Philadelphia	Hartford	St. Louis	Minneapolis	Toronto
Baltimore	Bridgeport	Omaha	Great Falls	Los Angeles
Washington	Cleveland	Dallas	Seattle	Sioux City
Atlanta	Detroit	Houston	Portland	Mexico City

W. S. RAY MANUFACTURING CO.

722 So. Michigan Ave., Chicago
120 New Montgomery St., San Francisco, California

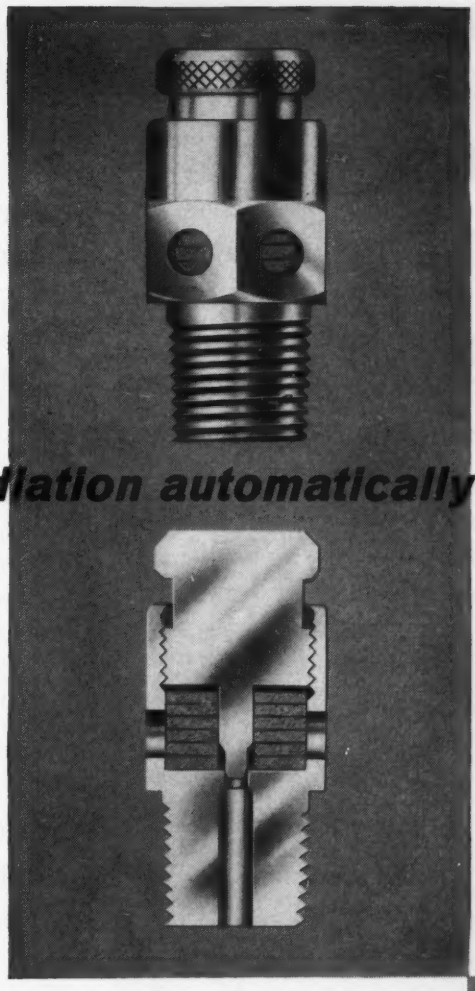
The above ad appeared in the October, 1922 issue of FUEL OIL magazine—one of the first burner ads ever run in the magazine!

THEN, AS NOW, THE WORLD LEADER IN OIL, GAS AND COMBINATION GAS-OIL BURNERS

Ray Burner Company

1301 San Jose Avenue, San Francisco, California
629 Grove Street, Jersey City, New Jersey

NEW
LOW-COST TACO-VENT
#402 Automatic Hot Water Air Valve



for venting hot water radiation automatically all the time

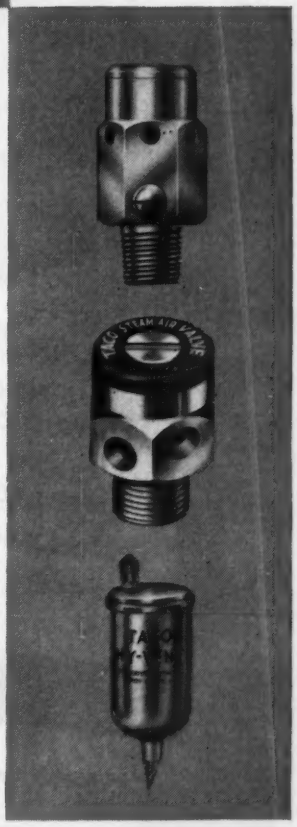
Taco Air Valves have consistently led the industry in quality and performance.

Now a new Taco-Vent, the 402, is available as the low-cost companion to the 400-401 series, the world's most popular automatic air valve, field proven on millions of installations.

no. 402 features

No other air valve has this exclusive combination of features.

- Water flow is controlled by close fit of extended pin in bottom port.
- Positive shut-off.
- Bottom port may be cleaned by rotating vent screw.
- Fiber space can be varied by adjusting vent screw.
- Knurled vent screw adjustable by hand—non-removable.
- Brass nickel plated.



NOS. 400-⅛" and 401-¼"
are the original automatic Air Valves with the safety plug.

NO. 410-⅛"
Taco Automatic Steam Air Valve is designed to remove air from steam convectors, radiators and mains without pinging, clicking or hissing.

NOS. 423 (30 PSI) and 424 (75 PSI)
Taco Hy-Vents (float type) are designed for large venting capacity, particularly suited for high points, radiant panels and down feed systems.

TACO HEATERS INCORPORATED

BETTER HEATING Taco BETTER WITH TACO

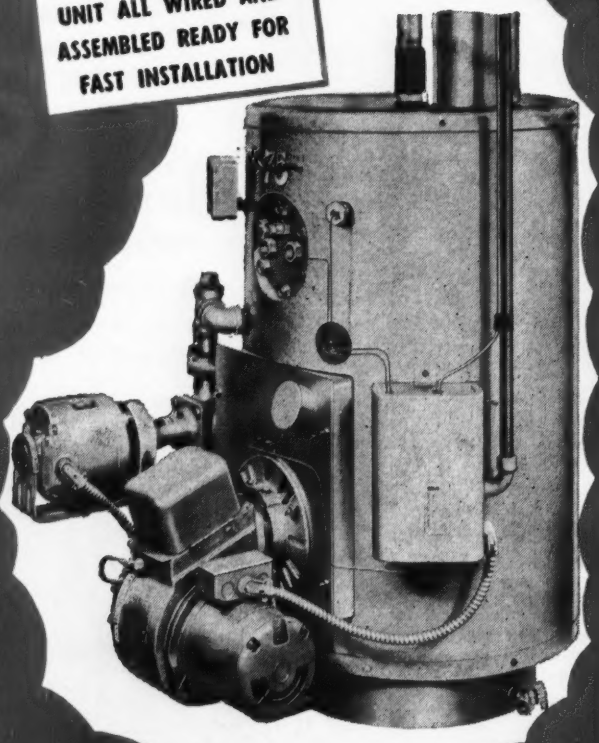
1160 CRANSTON STREET
CRANSTON 9, RHODE ISLAND

Corporate Office: 342 Madison Avenue, New York 17, New York
In Canada: Taco Heaters of Canada, Ltd., 4 Gilead Place, Toronto 2

CIRCULATOR • 170 PUMP • MP PUMP • FLOCHEK • AIR-SCOOP • TACO VENTURI • TEMPERING VALVE • HEAT EXCHANGER

Koven 75
for OIL or GAS

A COMPLETE PACKAGED UNIT ALL WIRED AND ASSEMBLED READY FOR FAST INSTALLATION



AN UNBREAKABLE FIRE DOME COMBUSTION CHAMBER
A SINGLE PANEL FOR ALL SAFETY CONTROLS
ECONOMICAL TO OPERATE
A SPACE SAVER

HEALTHY HOT WATER HEAT

Nationally Advertised

WATERFILM BOILERS, INC.
A DIVISION OF L. O. KOVEN & BRO., Inc.
154 OGDEN AVE., JERSEY CITY 7, N. J.
PLANTS: JERSEY CITY, N. J. • DOVER, N. J. • TRENTON N. J.

use with low voltage anticipated room thermostats, and with either line or low voltage primary controls.

Made by: White-Rodgers Co., St. Louis, Mo.

Circle E2 on coupon, page 122

Delavan introduces all-purpose Nozzle in Sizes .50 to 1.35 gph

PREMIUM NOZZLES, called Type W all-purpose, have been introduced by Delavan Manufacturing Co. The new line was designed to avoid confusion among servicemen as to the proper usage of so-called hollow and solid cone nozzles. Two years of testing and research went into the development of the all-purpose nozzle. Data from the field testing program indicates that the Type W nozzle will improve most fires regardless of type of installation. The line is available in sizes ranging from .50 through 1.35 gph.

Made by: Delavan Manufacturing Co., West Des Moines, Ia.

Circle E3 on coupon, page 122

Series of RD service truck Models offered by Morysville Body Works

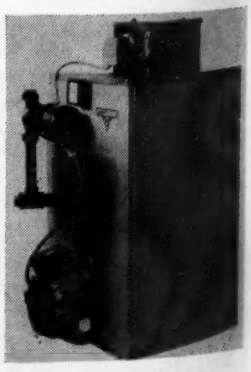
SERVICE TRUCK BODIES for ½ to 1½ ton chassis with CA's from 38" to 60" and body weights from 690 to 1024 lbs. are included in the RD series made by Morysville Body Works. All models have rod type hinges, weather sealed doors and adjustable shelves and trays as standard equipment. Bodies are electric welded throughout and Fendix undercoated.

Made by: Morysville Body Works, Inc., Boyertown, Pa.

Circle E4 on coupon, page 122

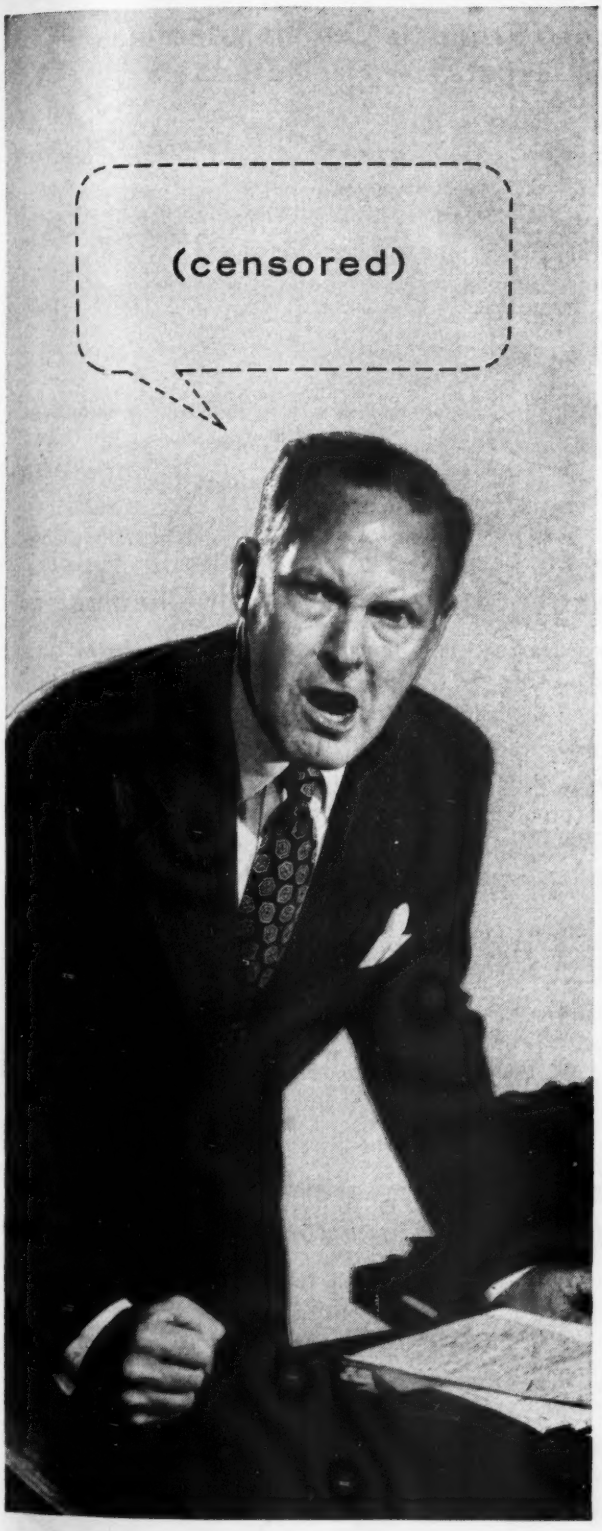
Fitzgibbons designs new 7700 Series of steel Boilers in four Capacities

LATEST ADDITION to the Fitzgibbons line of steel heating boilers is the 7700 series made up of the following capacities: 74,000 Btu net installed radiation; 87,000 Btu; 108,000 Btu; and 149,000 Btu. The completely factory assembled units are equipped with oilburners and all necessary controls. Units are furnished with the Fitzgibbons Tanksaver to supply domestic hot water—no storage tank is needed.



Made by: Fitzgibbons Boiler Co., Inc., 101 Park Ave., New York 17, N. Y.

Circle E5 on coupon, page 122



"The day I got **MAD** *enough to do something about my sales!"*

"Customers complaining about service—and dropping off because of it . . . drivers chasing all over the county, phoning in from every stop . . . trucks piling up dead mileage that was just money down the drain . . . finally I'd had enough—I decided to get off the fence and at least *try* 2-way radio.

"It's been just a year since my Motorola equipment was installed—sales and profits started climbing *from that day*. My dispatcher now keeps contact with every driver all day long. He can plan the work so waste mileage and time are held way down—and every truck makes *more* deliveries every day.

"Emergency calls get answered in just a few minutes. In fact our customer service is now the fastest and best in our area. Now that we've used it, we just couldn't do the job without our Motorola 2-way radio. Before I decided, I asked around, and everyone I talked to considers Motorola the best in the business. I guess they should be—they've had the most experience. So I picked Motorola 2-way radio and it doesn't cost—it Pays!"

FOR ACTION!

(TO FUEL OIL SUPPLIERS)

MOTOROLA

2-WAY RADIO

MOTOROLA COMMUNICATIONS & ELECTRONICS, INC.
A SUBSIDIARY OF MOTOROLA, INC.
4501 AUGUSTA BOULEVARD • CHICAGO 51, ILLINOIS

MOTOROLA Communications & Electronics, Inc.
4501 Augusta Blvd., Chicago 51, Ill.

☐ Send me additional information
☐ Have a Radio Engineer call on me

NAME _____

COMPANY _____

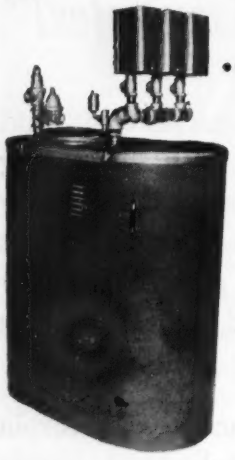
ADDRESS _____

CITY _____ STATE _____

The only complete radio communication service—by the outstanding leaders of the industry.

completely PACKAGED

ZONE CONTROL!



GOLD CROWN BOILER with EXTENDED JACKET

GROSS OUTPUT — 100,000 BTUH AND UP

FEATURING—

- **From 1 to 6 PRE-WIRED Zone Control Motorized Valves**
- **High output and efficiency**
- **All Copper Tankless Hot Water Heating Coil**
- **Easy-to-carry crate with safety carrying handles — complete package only 380 lbs.**
- **Simplified installation**
- **Complies with ASME Code**
- **All components completely assembled and pre-wired**
- **Compact design in minimum floor space**

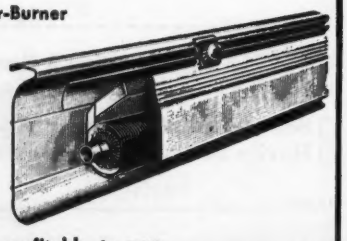
COMPLETE PACKAGE INCLUDES:

Boiler	Theraltimeter
Burner	Thermostat
Combustion Chamber	Pressure Relief Valve
Insulation	Stack Control
Jacket (Flush or Extended)	Triple Acting Thermostat
All Copper Tankless Coil	Flow Control Valve
Circulator	Flow Regulator

ZONE CONTROL VALVES

Get on the band-wagon now

ask your supplier about the new SPI-ROL-FIN Boiler-Burner with SPI-ROL-FIN Zone Control valves which when combined with SPI-ROL-FIN'S Baseboard Radiation will make your next installation



— Easier • Faster • More profitable to you

Write, wire or phone for complete information

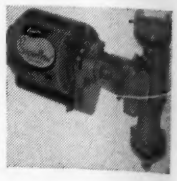
SPI-ROL-FIN CORPORATION

133 GREENWOOD AVENUE • PEQUANNOCK, NEW JERSEY

Telephone: TERHUNE 5-3352

Econo Products Co. manufactures new Super-flow circulator Line

THE NEW SUPER-FLOW LINE of circulators has been designed by Econo Products Co. to meet increased demands for more complex baseboard, convector, radiant panel, or split level type of installation. Interchangeable pipe connection flanges allow the circulator to accommodate any forced hot water heating system using pipe sizes of ¾", 1", 1¼" and 1½".

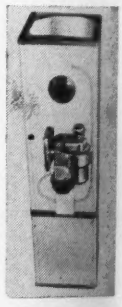


Made by: Econo Products Co., Division of Viking Instruments, Inc., East Haddam, Conn.

Circle E6 on coupon, page 122

Lennox Starfire Furnace has fin-type heat Exchanger, Silica-Felt Chamber

AN ULTRA MODERN finned-type heat exchanger of quick heating steel is featured in the new oilfired, horizontal, forced air furnace Starfire Stowaway of Lennox Industries. Combustion gases are forced through the long thin fins and special turbulators force the air from the return ducts to "scrub" the exchanger fins and thus pick up maximum heat.



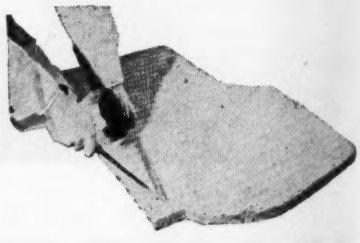
The combustion chamber lining is of Silica-Felt. Starfire also features a compact cabinet with right or left air travel, Lennox floating blower and high-efficiency "hammock" air filters.

Made by: Lennox Industries, Inc., Columbus, Ohio.

Circle E7 on coupon, page 122

Baldwin-Hill mineral wool Insulation applicable to interior duct surfaces

A SEMI-RIGID duct insulation, felted from spun mineral wool fibers, is applicable to both exterior or interior duct surfaces. The new Baldwin-Hill insulation, which is non-irritating to handle and easily cut to conform to irregularly shaped surfaces, is available in three types: plain, or with an integral vapor barrier for application on duct exteriors, and neoprene-coated for duct interiors.



The insulation comes in 24" x 48" sheets with thicknesses of ¾, 1, 1½ and 2 ins. It has density of 6 lb. per cubic foot, a thermal conductivity of .24 btu in. per hr., sq ft, at 75° F, and will stand 450°F temperatures.

Made by: Baldwin-Hill Co., 500 Breunig Ave., Trenton, N. J.

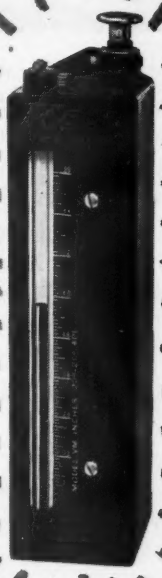
Circle E8 on coupon, page 122

new!

KECO

Remote-Reading **TANK GAUGE**

For Oil and Gasoline



- Versatile!
- Attractively Priced!
- Economical to Handle!
- Minimum Dealer Inventory!

FREE BULLETIN shows why the Keco gauge is a natural for users, distributors and dealers alike. Write Today!

KING ENGINEERING CORP.

Box 410 • Ann Arbor, Mich.

MANUFACTURERS OF GAUGING EQUIPMENT FOR OVER 30 YEARS

CLEAN UP WITH GOOD TOOLS

—Get 'em at SID HARVEY'S

HARVEY FURNACE VACUUM CLEANER

With a powerful motor gives you the suction you need.

DOUBLE PROTECTION

Two inside dust bags give you better filtering action and complete protection against nasty blow-outs.

Complete with Attachments

Harvey Jr. ..... **$ 99.50**

Harvey De-luxe **111.65**

ATTACHMENTS & SPARE PARTS

For other cleaners including G.E., PREMIER, KENT, DOYLE, TORNADO and SUPER SUCTION, fully described in SID HARVEY'S catalog — Ask for it.

FURNACE & DUCT BRUSHES

Stubborn soot and scale is removed quickly when you use the proper brush. Sid Harvey's has 'em all.

SOOT GUNS & SOOT DESTROYERS

Clean out soot from places that Vacuum Cleaners or Brushes can't reach.

SID HARVEY INC.

VALLEY STREAM NEW YORK

AVAILABLE AT ALL 47 SID HARVEY STORES

OIL BURNER SERVICEMEN:

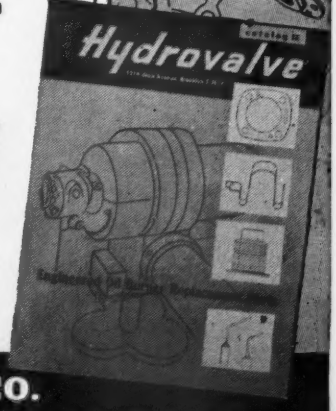
What'll You Have?

- ELECTRODES
- GASKETS
- FUEL UNIT PARTS
- SERVICE TOOLS
- SHAFT SEALS
- ACCESSORIES

HYDROVALVE'S precision manufactured service parts guarantee top performance, quick installation and elimination of costly call-backs.

HYDROVALVE'S engineering leadership also brings you time-saving tools to speed service calls and save you money.

For your **FREE HYDROVALVE** Catalog of engineered replacement parts, shown actual size, write today to:



HYDROVALVE CO.

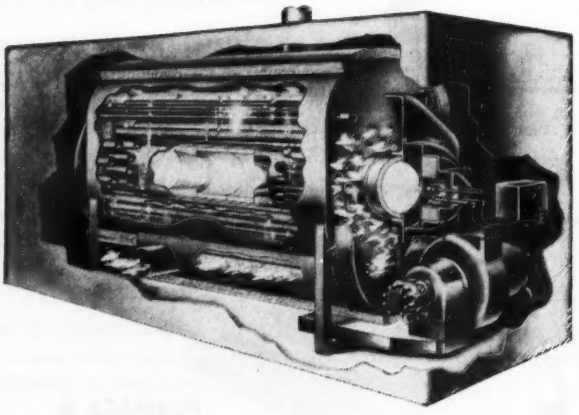
1319 Utica Ave., Brooklyn 3, N. Y., BUckminster 4-1330

This is the Year...

TO SELL NEW HEATING EQUIPMENT TO REPLACE MILLIONS OF HEATING SYSTEMS NOW ANTIQUATED . . . OR THAT ARE NO LONGER EFFICIENT . . . AND THAT ARE COSTING THE HOME OWNERS REAL MONEY!

This is the Unit...

TO SELL . . . TO GIVE YOUR CUSTOMERS MORE FOR THEIR MONEY IN FUEL ECONOMY, COMFORT AND CONVENIENCE THAN THEY HAVE EVER KNOWN BEFORE!



THE BETHLEHEM DYNATHERM

offers everything millions of home owners want in a heating plant—*More for their money in Fuel Economy—Saves 40% and more!—*Actually pays for itself in 5 Years!—*Year 'round domestic hot water at economical costs!—*Most efficient heating plant on the market!—*Dependable, uninterrupted service!—*Minimum installation cost!

THE BETHLEHEM DYNATHERM CAN MAKE 1957 YOUR MOST PROFITABLE HEATING YEAR!

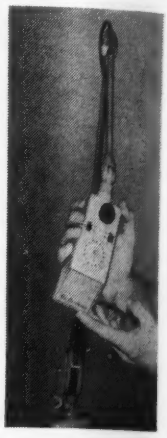
Why not get started now selling this outstanding Package Unit—and get your share of this profitable "replacement" business! Wire or write immediately for full information!

BETHLEHEM FOUNDRY & MACHINE COMPANY

BETHLEHEM, PENNSYLVANIA, U.S.A.

Combination talk-hear Unit decreases Size of radio Equipment made by RCA

COMBINATION talk-hear-control unit called the "Minitrol" has been developed by Radio Corp. of America to take desk clutter out of mobile radio base station installations. Made possible by transistors and miniaturized components the unit combines in a single case its microphone, speaker and controls necessary for station operation of two-way radio systems. The "Minitrol" can be mounted on an adjustable arm over the dispatcher's desk; can be preset for hands-free operation; and provides foot switch for transmitter operation.

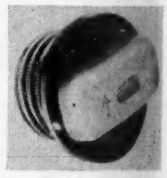


Made by: Radio Corp. of America, 30 Rockefeller Plaza, New York 20, N. Y.

Circle E9 on coupon, page 122

Ward's Sightmaster Fuse will locate overloaded circuit with Neon Light

A NEW FUSE, the Sightmaster, offers greater ease in locating blown fuses by lighting up. The fuse is screwed into the box like any other fuse. When a short circuit occurs, the fuse flows out and then a Neon light on the top of the Sightmaster flashes indicating which circuit is broken. When the cause has been corrected the fuse is turned to the next setting and electric current restored—each Sightmaster is good for six blow-outs.

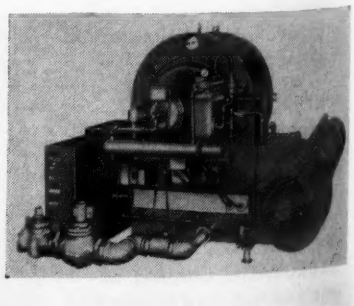


Made by: Ward International, Inc., 601 S. Vermont Ave., Los Angeles, Calif.

Circle E10 on coupon, page 122

Ray Oil Burner Co. manufactures new forced draft packaged Burner

A FACTORY assembled unit designed specifically to be combined with any type boiler for forced draft operation has been designed by Ray. The packaged boiler-burner unit is for high or low pressure steam or hot water heating with maximum rated capacities from 90 to 750 developed output horsepower. Burner specifications may be selected to burn any grade of fueloil.



Made by: Ray Oil Burner Co., 1301 San Jose Ave., San Francisco 12, Calif.

Circle E11 on coupon, page 122

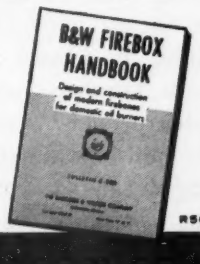
When converting fireboxes

Put Across The Fuel Savings Story!

Naturally homeowners are cost-conscious these days. That's why it is good business to tell conversion prospects about fireboxes made of *fuel-saving* B&W Insulating Firebrick.

Because B&W IFB are *light in weight*, they do a better insulation job . . . come up to operating temperature fast, hold heat inside the combustion chamber. That results in 15% to 25% savings in fuel bills—a good way of building satisfied customers.

Explain, too, that they will get *better* combustion as well as *clean, odorless* heat that will certainly please Mrs. Homeowner. Rely on the B&W Insulating Firebrick story to make you *the* man to see in your community.



A Valuable Guide for Every Installer

Send today for this Handbook!

R564

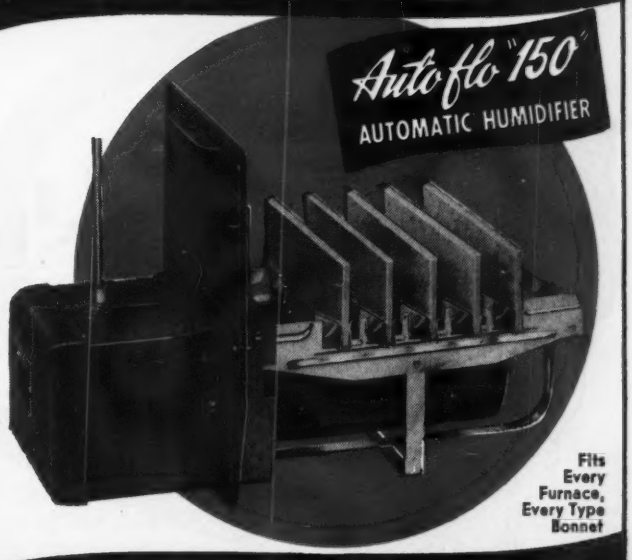
THE BABCOCK & WILCOX CO.

Refractories Division

General Offices: 161 East 42nd St., New York 17, N.Y.

Works: Augusta, Ga.

How to WIN Customers and INCREASE PROFITS!



Feature and Sell the New

Auto flo "150"

AUTOMATIC HUMIDIFIER

with the Revolutionary New and Unbreakable Glass Fiber . . .

EVAPORATOR PLATES

Absolutely unbreakable . . . pick up water faster . . . evaporate more water . . . rustproof drain clips prevent drip.

Advanced Design

New Cut-Out Template Reduces Installation Time by Half • Inspection Plate Slips on and off without Tools • 50% More Humidifying Capacity • No Moving Parts • Nothing to Stick, Clog or Require Frequent Service.

MAIL NOW!

AUTO-FLO CORPORATION
12085 Dixie Street, Detroit, 39 Michigan

Please send me full information on:

☐ Auto-Flo Fuel Oil Filter
☐ Auto-Flo Automatic Humidifier

Name_____

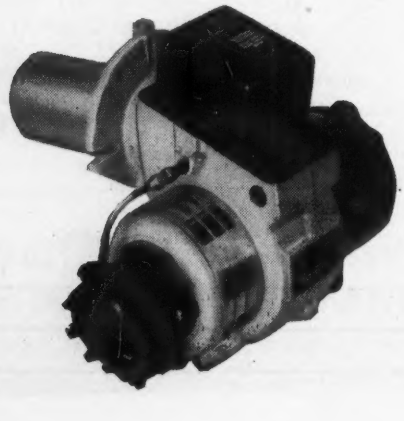
Address_____

City_____ Zone_____ State_____

complete selection

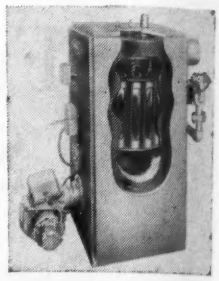
like *Nu-Way* oil burners

You can cover the whole waterfront of residential and commercial oil burner requirements with the Nu-Way line. Nine models bracket fuel consumptions ranging from .65 to 33.00 g.p.h. And, each model is designed to deliver high efficiency over a wide firing range. A complete selection of flange and adjustable pedestal mounts is further insurance that Nu-Way is the only name you need to know in fine oil burners. Nu-Way Corporation, Rock Island, Illinois.



Repco Thrift-Master Boilers now available in full capacity Range

THE REPCO Thrift-Master vertical tube boilers now are available in a full range of capacities from 105,000 to 276,000 Btu/hr. Units are delivered either complete with circulator and necessary controls and wiring in place, or knocked down as desired. Pipe connections are easily accessible and tops are removable to permit easy cleaning and extraction of baffles. Units are manufacture to ASME code requirements.

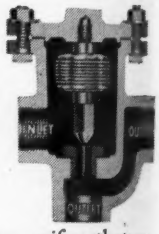


Made by: General Republic Heating Products Co., Philadelphia, Pa.

Circle E12 on coupon, page 122

Clark thermostatic steam trap Series for Pressures to 300 psi

THREE SERIES of Clark thermostatic steam traps of cast semi-steel, cast-steel or cast-bronze construction are designed for installations requiring: a wide variation between startup and operating load; frequent shutdowns and startups; large amounts of air elimination on startup or during operation. Freeze-up danger is decreased by providing traps with bottom outlet.



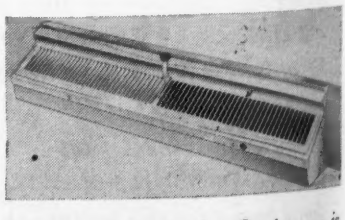
Each thermostatic trap is fitted with an orifice that operates the entire pressure range, from 0 gauge to maximum rated pressure, without necessity of adjustment. Traps are available for steam pressures up to 300 psi, and temperatures up to 500° F. Inlet and outlet connections range from ½" to 2".

Made by: Clark Manufacturing Co., 1830 East 38th St., Cleveland 14, Ohio.

Circle E13 on coupon, page 122

Air Control baseboard Diffuser features new "air sweep" Style

AN ECONOMY MODEL baseboard perimeter diffuser introduced by Air Control Products features 34 sq. in. free area, "Air Sweep" styling and two-tone finish. It delivers a wide, fan-shaped air pattern which can be varied by adjusting the fins. Balancing damper can be set for any desired cfm. Resistance is very low. The face is removable whether diffuser is installed on sub-floor and plastered in, or installed on finished floor. It is 24" long, 4" high and project 3" at base.



Made by: Air Control Products, Inc., Coppersville, Mich.

Circle E14 on coupon, page 122

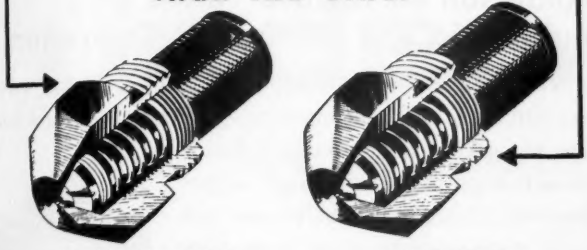
I give Expert Service and I use . . .

APTHORP TRUE ALIGNMENT

NOZZLES

BOTH ARE PERFECT

but one may be ***BETTER*** for a ***PARTICULAR BURNER*** than the other



HOLLOW SPRAY **SOLID SPRAY**

Every burner has a certain air pattern that is governed by the design of its particular head. Either an Apthorp Hollow Spray or Solid Spray Nozzle will mate best with this air pattern. By use of the right type, CO_2 will increase from 2% to 4%.

"My Customers appreciate the DIFFERENCE!"

For details, write to:

BOSTON MACHINE WORKS COMPANY

Oil Heating Supplies Div.
7-17 WILLOW STREET
LYNN, MASSACHUSETTS

PELCO FUEL & BURNER CORPORATION
PROOF
Until we began using the Blue Heat additive we had been bothered with clogged up nozzles on certain makes of burners which we are servicing. Blue Heat has eliminated this problem.
Blue Heat has dispelled the offensive fuel oil odor caused at our loading racks. Before using Blue Heat the odor of the fuel oil was quite obvious throughout our terminal, now the same is not noticeable at all.
As you can see by our letterhead we are featuring Blue Heat in our fuel oil.
I believe that your additive will increase our fuel oil sales considerably during the coming heating season.

HIGH-TEST PREMIUM
BLUE HEAT
FUEL OIL ADDITIVE

builds Fuel Oil Business

Write today for a franchise in your area

PARKE-HILL CHEMICAL CORP.
29B Bertel Ave. • Mount Vernon, N. Y. • MOunt Vernon 8-7220

In Every Field there's ONE Leader!

in Furnace Cleaning the Leader is the PULLMAN NEVER-CLOG VAC!

• The Pullman gets you in and out of the cellar *fast* because it's guaranteed never to clog under any conditions.

COMPLETE ACCESSORY KIT

FREE

With Your Pullman Never-Clog Vac

- **27" metal crevice tool**
- **Power blower nozzle**
- **Handy scraper tool**
- **Flexible metal asbestos packed hose**
- **10' x 1½ I.D. heavy duty hose**

ACT NOW! MAIL THIS COUPON!

Pullman

THIS IS THE TIME TO CLEAN-UP on those Furnace Cleaning Jobs!

Pullman Vacuum Cleaner Corp. FO-7
25 Buick Street, Boston 15, Mass.

Rush me complete details on the Pullman Never-Clog Vac, so I can make more calls . . . more sales . . . more profits per day.

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ **STATE** _____

BECKETT

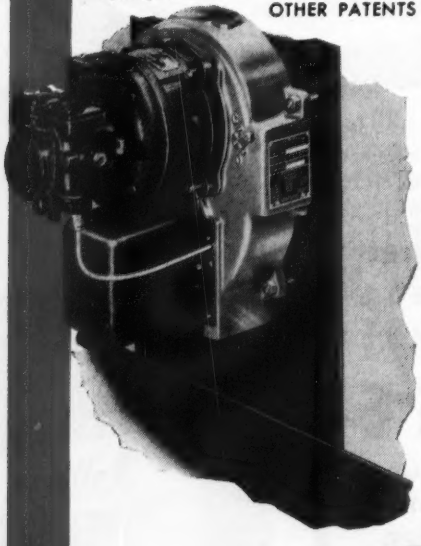
a Great Name in Oil Heating...

Many patented features of the Beckett Burner have won the wholehearted endorsement of dealers and service men alike.

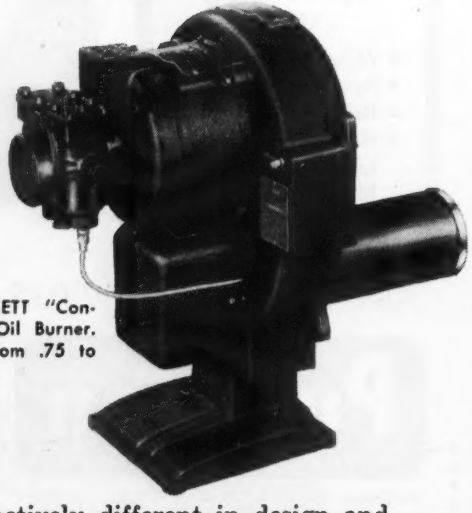
Beckett burners are made and sold under one or more of the following patents:-

UNITED STATES		CANADA	
D-152,668	2,330,191	1942	405,069
D-163,671	2,506,192	1943	415,119
2,287,462	2,599,153	1944	421,049
2,287,595	2,648,284	1946	435,670
2,300,903	2,748,843	1952	487,003
2,310,274	2,777,509	1952	487,510
2,330,190			

OTHER PATENTS PENDING



The BECKETT "Plate-Mounted" oil burner for units. Models from .75 to 6.0 gph.



The BECKETT "Conversion" Oil Burner. Models from .75 to 13.0 gph.

Distinctively different in design and basic operating principle. The BECKETT is truly today's FINEST

BECKETT — THE R. W. BECKETT CORPORATION
Elyria, Ohio · On U. S. Route 20

Secondary filter Bag now comes with Pullman commercial Vacuums

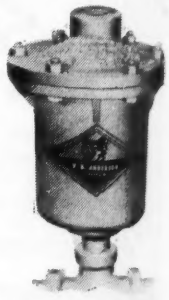
NEVER-CLOG secondary filter bags will be standard equipment on all Pullman commercial vacuum cleaners. This bag is chemically treated to shed oily soot, scum, and sticky substances that normally cling to the fibers and cause clogging.

Made by: Pullman Vacuum Cleaner Corp., Boston, Mass.

Circle E15 on coupon, page 122

Anderson air release Valves give automatic and continuous Operation

A NEW LINE of heavy duty, Anderson air release valves are automatic and continuous in operation. Body and head are of special cast-iron metal. Inside is a rust-proof heavy gauge copper float which actuates a valve and seat made of corrosion-resistant, heavy duty bronze.



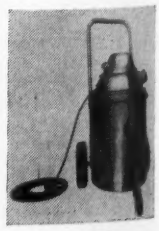
Three types of valves are made: Type No. 70 in ½" size for pressures up to 125 psi; Type No. 72 in ½" and ¾" sizes for 250 psi and Type No. 73 in 1", 1¼" and 1½" sizes for 250 psi.

Made by: The V. D. Anderson Co., Division of International Basic Economy Corp., 1935 West 96th St., Cleveland 2, Ohio.

Circle E16 on coupon, page 122

'Cleaning Team' for heavy duty vacuum Jobs is designed by Kent

THE AVAILABILITY of the new Turbo-Vac line of vacuum cleaners plus the recently developed Drum-Seal combine to make a cleaning team for fueloil dealers. The Kent team is adapted to boiler and furnace cleaning, removing dirt from ducts and piping, and other cleaning operations in the heating, ventilating and airconditioning fields.



The cleaner may be used either as a complete unit for ordinary light cleaning operations or the head only and the Drum-Seal as a team. Turob-Vacs come in four models, with tank capacities from 2/3 bushel to 1-2/3 bushels.

Made by: The Kent Co., Inc., Rome, N. Y.

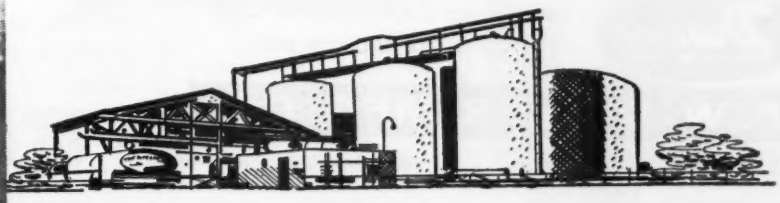
Circle E17 on coupon, page 122

Airconditioner operating on Water made by Hastings Air Control Co.

A HOME AIRCONDITIONER which operates entirely on cold city water or well water without the use of a compressor has been announced by The Hastings Air Control Co. The unit consists of an all-copper water coil, cabinet,

"We chose underwood because we're customer-minded,"

says Nelson W. Thompson, General Manager
Nassau Oil Company, Princeton, N. J.



"In the selection of a fuel oil supplier, customers are looking first of all for service," says Nelson W. Thompson, General Manager of Nassau Oil Company. "One of the ways we have improved our service is by the automatic scheduling of deliveries as a by-product of accounts receivable posting. Our new Underwood Sundstrand accounting machine has a memory system which automatically computes and prints the degree day of next delivery for each and every account.

"With our previous hand bookkeeping system, the jam-up at the month-end was pretty terrible, and the mistakes were inevitable. Now, the machine checks itself and we know that every statement is correct when it goes out. Since we put in the Underwood machine, I can't remember a single valid customer complaint about statements.

"Of course, people are still calling up to ask about their accounts because they lost their statement or something. We can now give them the figures they want within a few seconds — because the Underwood system keeps all our records up to date.

"During the peak season, it takes only six hours to post the complete records on our 3,000 accounts; in the summer, only half that time. And it looks as though just one machine will be enough for us until we hit the 4,500 mark on our accounts list. Then we'll ask Underwood to deliver another machine."

Let our Systems Specialist give you a few interesting pointers on the latest Underwood methods for fuel oil dealers. Call your local Underwood Showroom (see Yellow Pages), or write to Underwood Corporation, One Park Avenue, New York 16, N. Y.

The underwood sundstrand
FUEL-OIL DEALER MACHINE
Another **underwood** master-control system

fueloil & oilheat

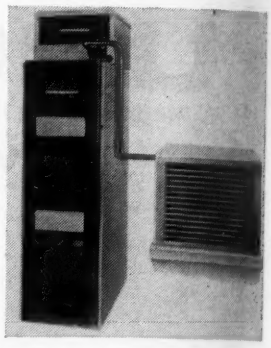
humidity pan and filter section. It can easily be attached to any furnace and requires no electrical connections. The coil operates on the same principle as a car radiator except in reverse. Discharge water may be used for domestic supply or lawn sprinkling.

Made by: Hastings Air Control Co., Omaha, Nebr.

Circle E18 on coupon below

Mor-Sun Models have completely new cabinet Design and Styling

A NEW LINE of warm air heating and summer airconditioning equipment has been introduced by Mor-Sun Division. Cabinets have been redesigned and styled with a two-tone green finish with polished copper trim—a new thermo-dynamic heat exchanger, backed by a ten-year written guarantee—a newly engineered blower—washable air filters which can be used season after season. All furnaces are factory assembled and completely wired. The airconditioner line includes air-cooled models, and air and water-cooled add-on units.



Made by: Morrison Steel Products, Inc., Buffalo 7, N. Y.

Circle E19 on coupon below

GET *PEAK* RESIDENTIAL AIR CONDITIONER EFFICIENCY WITH A Dwyer

AIR VOLUME GAGE

ACCURACY at a glance. Match static pressure drop across system's evaporator exactly to manufacturer's ratings in hundredths-of-an-inch water column. Brings top system efficiency —better sales!

LIFETIME construction with no moving or delicate parts. Solid transparent plastic block—almost indestructible.

COMPLETE ready-to-use pocket-size kit with gage, rubber tubing, connectors, pressure tips, spring holders, and gage oil fits into 8" x 7" plastic pouch. Ideal for field use by engineers and installers.

Dwyer CONTROLS GAGES

WRITE FOR BULLETIN B30

F. W. DWYER MFG. CO.

P. O. BOX 373-G • MICHIGAN CITY, INDIANA

READER SERVICE COUPON

FUELOIL & OIL HEAT READER SERVICE
2 West 45th St., New York 36
REPLY CARD JULY ISSUE
Mail Now—Coupon Expires September 30, 1957

Circle numbers of new product items on which you want more information:

NEW PRODUCTS

E1 E2 E3 E4 E5 E6 E7 E8 E9 E10
E11 E12 E13 E14 E15 E16 E17 E18 E19

ADVERTISEMENTS—Give page number and name of advertiser about whose products you want more information.

Page .....Advertiser .....

Your Name .....

Company .....Position .....

Street .....

City .....

Check Classification of principal dollar volume:
☐ Fueloil Dealer ☐ Parts and Equipment Jobber ☐ Manufacturer ☐ Manufacturer Employee ☐ Manufacturers Rep. ☐ Oilheating Dealer ☐ Other

KNOWN THE WIDE WORLD OVER

RAY BURNER

10,000 RAY BURNERS NOW OPERATING IN ALL PARTS OF THE WORLD

A Mechanical Masterpiece

That

Burns Cheapest Grades of Fuel Oil

Made in over 30 different sizes and shapes
See Our New BABY BURNER For Homes
In Full or Semi-Automatic Types

DISTRIBUTORS AT

Boston	Jacksonville	New Orleans	Des Moines	Chicago
New York	Providence	Kansas City	El Paso	Vancouver
Philadelphia	Hartford	St. Louis	Minneapolis	Toronto
Baltimore	Bridgeport	Omaha	Great Falls	Los Angeles
Washington	Cleveland	Dallas	Seattle	Sioux City
Atlanta	Detroit	Houston	Portland	Mexico City

W. S. RAY MANUFACTURING CO.

722 So. Michigan Ave., Chicago — 120 New Montgomery St., San Francisco, California

The above ad appeared in the October, 1922 issue of FUEL OIL magazine—one of the first burner ads ever run in the magazine!

THEN, AS NOW, THE WORLD LEADER IN OIL, GAS AND COMBINATION GAS-OIL BURNERS

Ray Burner Company

1301 San Jose Avenue, San Francisco, California
629 Grove Street, Jersey City, New Jersey

THRUSH QUALITY...

Pays Dividends in Time Savings and Customer Satisfaction

LOOK FOR THE NAME THRUSH

HORIZONTAL OR VERTICAL TYPES

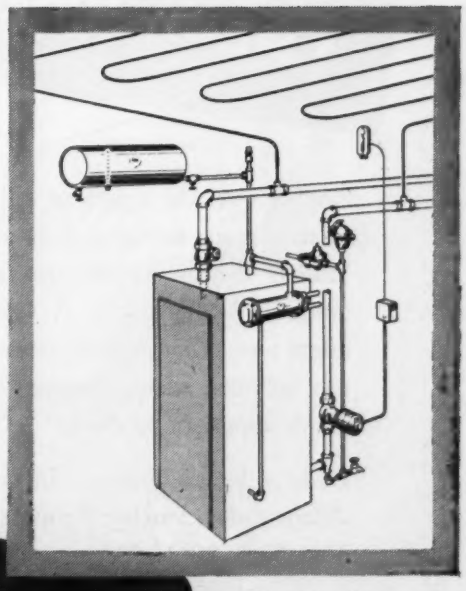
THE NAME THRUSH MEANS *Dependability* IN HOT WATER HEATING

TIME-TESTED . . . performance proved! That's Thrush . . . the finest Circulator for Hot Water Heating built today. Thrush has been building Circulators for more than thirty years . . . that's why Thrush know-how gives you more Circulator for your money . . . more capacity . . . more rugged construction . . . and service-free performance through years of continuous operation.

TYPES AND SIZES TO FIT EVERY HOT WATER HEATING NEED

You can pick the right Circulator, in the right size and type for each job from the complete Thrush line . . . save money, save time . . . and keep your prices in line. Take the problem of high resistance found in some radiant panel or radiant baseboard jobs. Thrush Hi-head Circulators will solve it. They have the capacity needed and the ruggedness required for the toughest job. Try them. *See your wholesaler for more information or write Department C-7.*

H. A. THRUSH & COMPANY • PERU, INDIANA



The Complete Thrush System

FOR LONG, TROUBLE-FREE SERVICE, INSIST ON GENUINE THRUSH CIRCULATORS

spend more time with builders on design service and equipment layouts, also guarantee to fit his schedules to avoid delays. The operative builder often uses a heating company not in the fueloil business, so the oil man needs to get back of him on these details.

The gas user in a small tight new home after living in an old leaky house finds his fuel bills modest. Speaking of replacement sales, he said that we do not replace many gas jobs because they're too new as an industry.

Loizeaux discussed "Apple Polishing the Boss," meaning of course the customers. Because this was a written paper and space is limited in this issue, we plan to bring it to you as a short feature in an early number.

Briggs, one of New England's most effective operators, maintains three bulkplants on Connecticut rivers, sells 30 million gallons of oil products including a modest amount of gasoline.

He talked mostly of internal management of a fueloil distributor. He feels that too many companies don't hire enough employees. In being afraid of overhead, they are cutting off their noses. He's not interested in how much money is spent, or how many gallons are sold, but how much profit is built up on a sound future basis.

All employees will do a good job if they want to, he says, and one good way of making them want to is to take part in the affairs of the company.

His three department foremen come in at frequent intervals for a "family" review. Then he has a six-man cabinet that meets one evening each week and it studies one department of the company for a full year. If Briggs, head of the business, can't sell an idea to his cabinet, he drops it.

Retirement Program

He has a retirement program for employees which the company itself carries. He called in a famous credit consultant to set up methods. He finds that his receivables on May 1 represented 26.4 days billing, that 7.4% of all receivables were not yet due, and that only 4.5% were over 60 days.

Another management feature is a continuing record of unapplied time of his burner service department. He uses an Electrofile one-card system for deliveries, which are zoned.

He has studied customer lists to eliminate a few uneconomical to supply. He cut out service accounts where no oil is sold, sending a man to courteously explain the reasons.

Feinberg described competitive conditions in the Detroit market, where there are now 103 fueloil companies and cheap gas rates. The gas utility has 380,000 heating users in the area but their expansion is now virtually stopped due to supply.

He showed that coal dealers in the '20s were being told to do all the things that we are today, but did few of them.

Feinberg was the earliest dealer member of the Oil Heat Institute of America, he likes to point out.

The final participant, Gray summed up the earlier discussions and emphasized the continuing need for oilheating to enlarge its promotional endeavors.

Here's Why Sinclair Fuel Oil Distributors

SELL MORE!

Sinclair Fuel Oil is easy to sell. It burns clean — keeps service calls to a minimum. Sinclair distributors get extra sales support. Strong ads are designed for local use. A special sales training program offers new profit-making ideas. Vast production and storage facilities assure Sinclair distributors of a steady and ample supply of products.

Build a better business. Increase your profits. Write for details *today*. Sinclair Refining Company, 600 Fifth Ave., New York 20, N. Y.

SINCLAIR FUEL OIL *with RD-119®*

100 ENGINEERS AVAILABLE

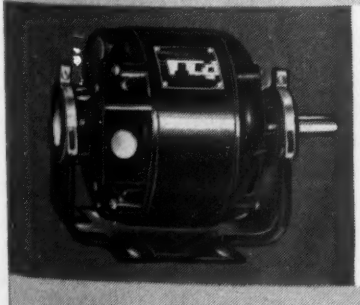
Yes, 100 engineers are ready to go to work for you *right now*. They're Emerson-Electric's *motor specialists*...available to help you in the development of your product—from idea through production.

Every Emerson-Electric motor is custom-engineered to suit your specific needs—*designed* for you, *produced* for you and *priced* for you. It is no longer necessary to design your product around a *standard* motor. Emerson-Electric engineers will help you get the product you want with a motor that exactly suits your purpose... a custom-engineered motor.

Call, wire or write Dept. M-65 today. The Emerson Electric Mfg. Co., St. Louis 21, Mo.

Engineer

opportunity for mechanical engineers ...a's larger manufacturing firms lo...



Every Emerson-Electric motor is custom-engineered to meet your exact requirements.

EMERSON-ELECTRIC

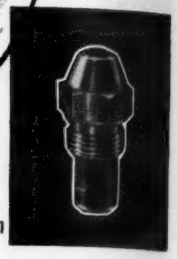
of St. Louis

Since 1890

have you tried—

THE NEW TYPE "W" ALL PURPOSE NOZZLE?

"You'll notice a big difference right away!"



WRITE FOR CATALOG W101

DELAVAN Manufacturing Co.
WEST DES MOINES, IOWA

Superlite

The Ultimate in Pre-Cast Kiln-Burned Chambers!

Kiln-Burned makes the difference! Fired for 100 hours, SUPERLITE CHAMBERS have insulating, quiet-burning, light-weight qualities that give far more to you and to your customers! Tongue-and-groove walls, ledged bottoms, for fast installation. Available in round, square, pear and flexible.

Get the complete SUPERLITE story now!

PRESBREY REFRACTORIES CORP.
"Our 131st Year"
602 Somerset Ave.
TAUNTON, MASS.

UL-OHI Label Plan

(*Begins on page 74*)

inspection by any agency having jurisdiction or interest as: FHA, fire department, building inspector or local dealer group.

(d) Any time within one year from date of installation, if installation is found to be faulty, installer will be required to correct in compliance with minimum OHI Standards.

Specimen
Installation Certificate

No. 0000

This installation of . . . mfgrs. name . . . , ... Product. . . . , Serial No. . . . . bears the UL-OHI label for safety and performance. It has been installed in accordance with National Fire Protection Association Safety Standard 31 and Oil-Heat Institute of America, Inc. Standards of Performance and has been tested with the following results.

CO_2 Shell-Bach.	Stack Temp. Gph	Draft Efficiency

Contractor . . . . . .
Address . . . . . .
Technician in Charge . . . . . .
Date . . . . . .

A very tangible result of the organization and implementation of the UL-OHI label plan would be the submission by the Steering Committee of a proposal for national oilheating advertising, promotion and publicity using the revenue from the sale of labels. The extent of the program, of course, would depend upon the number of manufacturers participating and the volume of their shipments. However, the proposal ultimately calls for merchandising the theme, "Buy only Products built to UL-OHI Standards of Safety and Performance." At the dealer level the tie-in would add, "Installed according to OHI Standards and Requirements."

With the entire emphasis placed on upgrading equipment and installations, any effort along the proposed line cannot help but sell the public on the advantages of quality oilheating and result in more satisfied customers. Further, acceptance by FHA and other regulatory bodies will heighten the demand for quality product and certified installation and, finally, the plan definitely affords the public a reliable yardstick by which to evaluate automatic oilheating.

❖

Harry M. Pier has been appointed executive secretary, Air Pollution Control Association, Pittsburgh.

NOW SERVING YOU FROM NEW ENGLAND'S MOST ACCESSIBLE ARTERY
ROUTE 128! (Turn at Route 62)

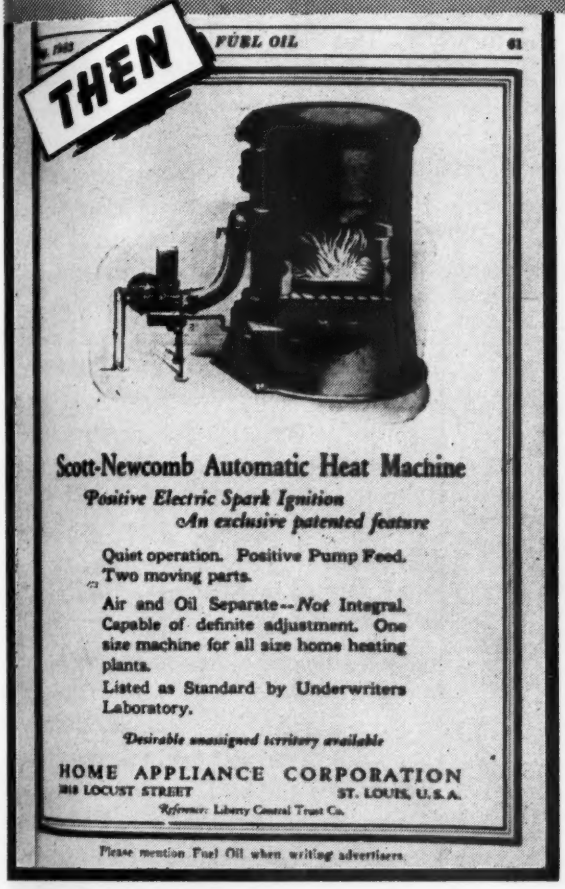
ESTABLISHED 1865
Waverly HEATING SUPPLY CO.

- Blue stove pipe and fittings
- Chromium plated stove pipe and fittings
- Galvanized stove pipe and fittings
- Prefabricated duct and fittings
- Perimeter heating pipe and fittings
- Small-pipe heating pipe-fittings

NEW ENGLAND'S LEADING MANUFACTURER AND SUPPLIER

117 ELLIOTT STREET • BEVERLY, MASS.
Telephone: Boston, Prospect 6-9090 • Beverly, Walker 2-0581

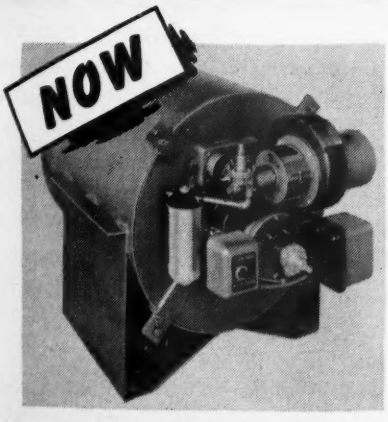
34 Years of ELECTROL


THEN
FUEL OIL
Scott-Newcomb Automatic Heat Machine
Positive Electric Spark Ignition
An exclusive patented feature
Quiet operation. Positive Pump Feed. Two moving parts.
Air and Oil Separate—Not Integral. Capable of definite adjustment. One size machine for all size home heating plants.
Listed as Standard by Underwriters Laboratory.
Desirable unassigned territory available
HOME APPLIANCE CORPORATION
818 LOCUST STREET ST. LOUIS, U.S.A.
Please mention Fuel Oil when writing advertisers.

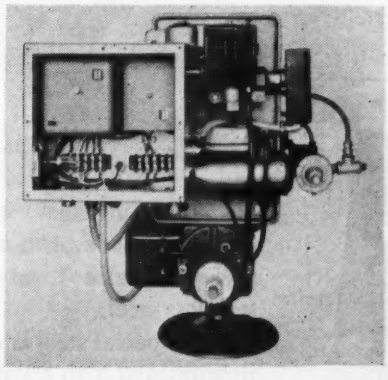
In May 1923 ELECTROL appeared in the first issue of Fueloil and Oilheat, probably the first burner ad to appear in any trade-paper. This "Model S" could boast of such "firsts" as: Automatic Electric Ignition, Intermittent Spark Control, Combination Fuel Unit and "High Temperature" Head.

Continually through the years, ELECTROL has been progressive, always striving to produce the finest oil burners by constant research, never resting on its laurels. For example, ELECTROL has developed the first oil burner utilizing an aviation jet engine atomizer on an ordinary domestic ELECTROL Burner for industrial applications simply because . . . ELECTROL Burners are naturally made to take it. ELECTROL has always put the best materials into every burner it ever made or *will* make, guaranteeing a practically "lifetime" burner — and in a price range that meets quality competition.

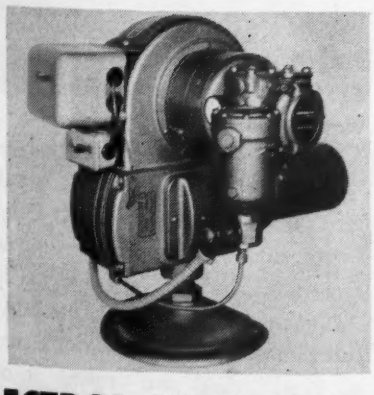
ELECTROL's future, as in the past, will be to design and produce only the finest oil burning equipment, built to last, to out-perform, to give the most efficient service possible. Remember, nothing beats quality . . . ELECTROL QUALITY.



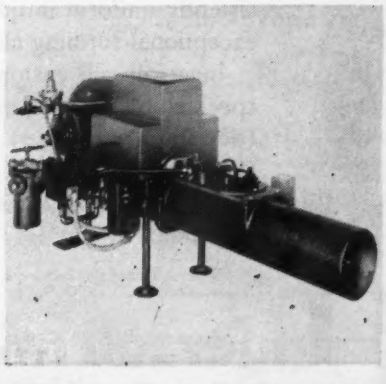
The present domestic "Ball Flame" Burner, "Grandchild" of the Scott-Newcomb, the most efficient burner on the market today, as adapted to a heavy industrial application.



Keeping pace with present day demands, ELECTROL Burners are now available with electronic controls completely mounted and factory tested.



This standard domestic ELECTROL Burner was sturdy and rugged enough to be converted for industrial use, utilizing an aviation jet engine type atomizer for extreme applications.



The New ELECTROL #4 oil burner, available in 3 sizes, incorporates famous ELECTROL Cut-off Valve. The nozzle lines are completely flushed on each burner start (Pat. App. For.)

ELECTROL BURNER MANUFACTURING CO., INC., RUTHERFORD, N. J.

Action gets Results

(*Begins on page 62*)

There are some instances when the actual calculation of the tenths would not mathematically require the assessment of the extra cent of Sales tax, but in order to have a formula of a set nature, the Deputy Comptroller of the State of Maryland rules that this procedure was necessary.

This whole business may seem at first blush somewhat complicated, but after a period of several weeks in the Baltimore area, we find that the local companies have been able to work this problem out very satisfactorily by the aid of the price chart and the routine hereinbefore described. In any event, the local dealers are determined to comply literally with the legal requirements and print into the tenths; they are equally determined to collect for the tenths and are so doing.

Monetarily speaking, we have made an approximate calculation, which shows in metropolitan Baltimore alone, a loss of approximately $80,000 would be suffered by the dealers in the event they waived the tenths rather than go through the calculative effort.

I might add that these price charts are used internally by office personnel rather than make extensions on calculating machines.

This calculative problem certainly presents a challenge to the pump and meter manufacturers of the nation to provide automatic computer equipment which will perform the entire calculative effort, and at the same time furnish visual evidence to the consumer through a printed ticket. Naturally, this mechanism will have to be so designed and constructed as to withstand road shocks, but surely this task is not beyond the inventive genius of our manufacturers, plus the fact that there is a splendid market in the offing for such equipment.

❖

Did Oilheating come, to Pass?

(*Begins on page 71*)

Pipeline building costs are high, interest rates are high, field prices for gas are moving up . . . in fact the new Florida Pipe will pay an average of 16½¢ at the well against the industry average of 9½¢.

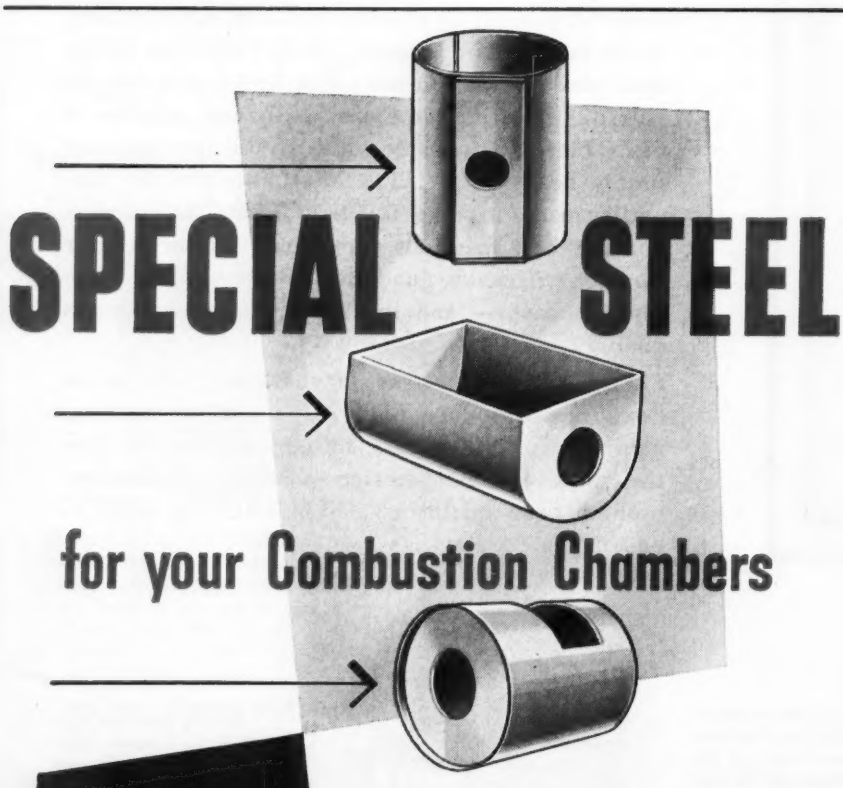
These costs would not be important if gas had any actual advantages over automatic heating fuels, but it doesn't and the promoters know it. After another couple of years of line filling, oil should again hold the lead.

Some of you dealers have been trying to sell out. Some of you are amazed at the high prices that smart money is willing to pay for your accounts. A few are going as high as 3¢ a gallon just for the good will, with the physical properties extra.

This industry is just rounding the turn into maturity. Operating methods are getting better fast because a lot of the dealers are now big enough to afford the best of everything in the way of tools.

Keep your boys in the company. They'll do a better job than you did because they start in a period of keen intelligent competition. Five years from now you'll be very glad you did.

That brings us back to the title of this rambling, "Did oilheating come—to pass?" And the answer of one man is, "Obviously not!"



Heat-Resisting Sheared to Size

Advantages of Heat-Resisting Steel Combustion Chambers

- No breakage in shipment or handling
- Lighter weight lowers freight costs
- Quicker heating—greater efficiency
- Cleaner heat—better temperature control

Save time and money by fabricating your oil burner combustion chambers from sheared-to-size Ingersoll heat-resisting stainless steel.

This special steel is correct in analysis to withstand high temperatures . . . consistently uniform in quality . . . and has exceptional forming characteristics.

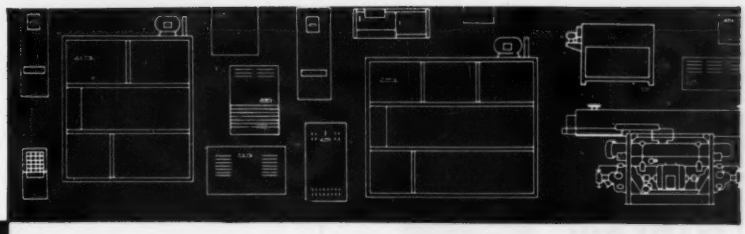
Ingersoll will custom shear it to your specified blank sizes, or multiples thereof (depending on size). And Ingersoll's flexible facilities are geared to handle large jobs or small ones with speed and precision.

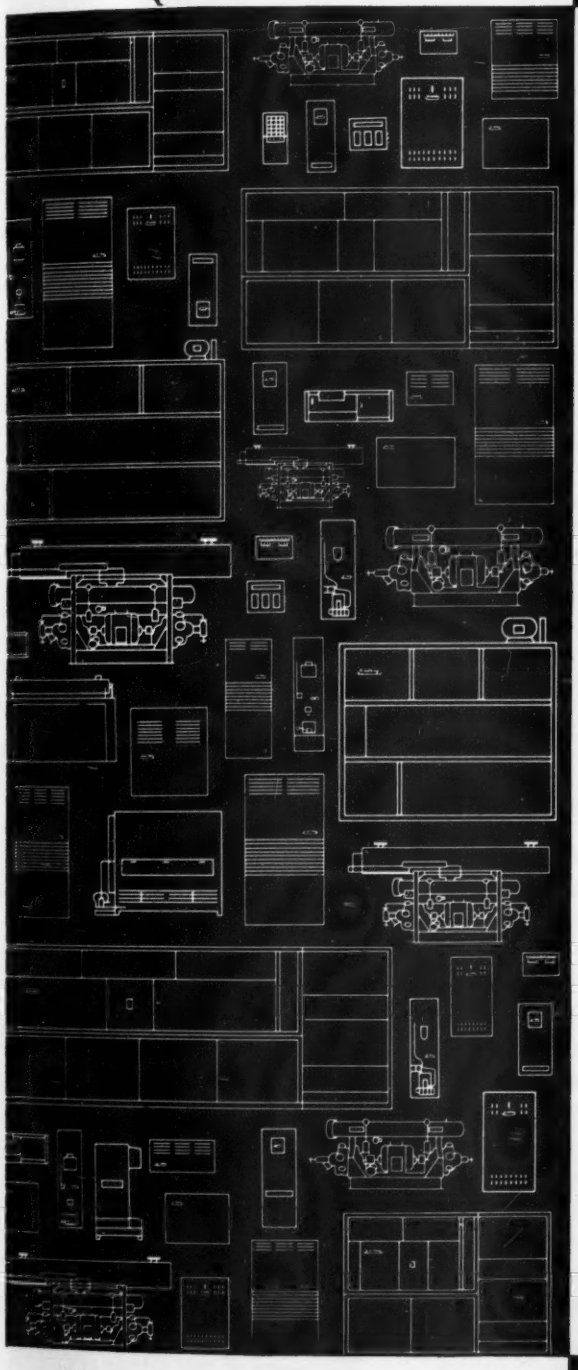
Ingersoll does not fabricate combustion chambers

Write, wire or phone for details

B-W

Ingersoll STEEL DIVISION
Borg-Warner Corporation
New Castle, Indiana





AIRTEMP'S Furnaces..

SELL EASIER
INSTALL EASIER

An Airtemp franchise boosts furnace sales for dealers because:

- Airtemp furnaces are Chrysler-engineered for quality and dependability.
- You get merchandising aids which are tested and effective.
- Your customers can add matched Airtemp cooling now or later.
- Products with a well-known and respected name—Chrysler's Airtemp—are easier to sell.

You get quick delivery and expert help from a *nearby* factory-trained Airtemp distributor. Airtemp furnaces are completely assembled and pre-tested.

HEATING AND AIR CONDITIONING FOR A ROOM, A HOME, A BUSINESS, AN AUTOMOBILE

Airtemp
DIVISION
CHRYSLER CORP

For prompt information on Airtemp franchise opportunities, mail coupon at right.

AIRTEMP DIVISION, Chrysler Corporation
Dayton 1, Ohio

Gentlemen: Please rush full information on the Airtemp franchise!

NAME_____

ADDRESS_____

CITY_____

ZONE_____ **STATE**_____

RENICK & MAHONEY, INC.

EQUIPMENT THAT CUTS COSTS

MARLOW VERTICAL PUMPS

For efficient handling of volatile fluids. Always dependable — on suction lifts, for underground or overhead storage, for fueling and transfer service. Easy to install. Capacities, 5 to 120 gals. per minute. Consult us now about *your* plant or truck equipment problems, or write for catalog.

RENICK & MAHONEY, INC.
380 Second Ave. (at 22nd St.)
New York 10, N. Y.
Complete Equipment for the Oil Trade

SERVICE

Eze-Snap Service Form No. 1

DEGREE DAY SYSTEMS - WOODSIDE 77, N. Y.

04362
The BURNER SERVICE Co.
4390 ENNY AVENUE
HAWKINS, N. J.
BE 5-5245

NAME
ADDRESS
INVOICE TO:
TROUBLE REPORTED:
CAUSE OF TROUBLE
BURNER MODEL
Collect $
DATE
ARRIVED A. M. P. M.
FINISHED A. M. P. M.
TOTAL TIME HRS.
WORK DONE: Cleaned Boiler, Cleaned Smoke Pipe, Oiled Circulator; Burner, Chimney Base, Oiled Blower; Controls, Oiled Motors
PARTS and MATERIALS:
COST OF PARTS
MEN TOTAL OF HOURS LABOR @ COST OF LABOR
THIS IS YOUR INVOICE
PAY THIS AMOUNT
OWNER AGENT TENANT
This apparatus is now working satisfactorily
CUSTOMER'S SIGNATURE X
RECD. PAYMENT $

SAVE MONEY
INCREASE EFFICIENCY
Make service billing and service charges as easily understood as fuel oil meter tickets.
SEND FOR FREE SAMPLE
DEGREE DAY SYSTEMS
WOODSIDE 77, N. Y.

Get in Hot Water

(*Begins on page 76*)

included in the installed price. But the cost of this is low for an oilburner that's part of a water heater. One reason for this is that the oilfired water heater is a package unit to a greater degree than a heating furnace or boiler fired by an oilburner. Another reason: The oilburner firing a water heater runs few hours per day . . . it runs few hours per year compared to an oilburner that heats a house.

Mere mention of that dream of fuel-oil-minded executives—of the oilfired water heater installed for $200—naturally will raise the hair and the ire of many men in the oilheating equipment business. Details of the dream include a study of the prices at which oilfired water heaters are available to the oilburner dealers—and local fuel-oil suppliers—who install such heaters. The lowest price oilfired water heaters must be judged carefully. How many years will their water-storage tanks last?

Other questions arise. Are local fueloil suppliers planning to install the heaters at no profit? Or at a slight loss, thus subsidizing oilheating in their localities? Will they charge up the one-year no-charge service expense to their fueloil sales departments?

The fact is that highly respected authorities, with the interests of fuel-oil and oilheating uppermost in their minds, have reached the conclusion that oil heat will lose much to gas heat in furnace-heated homes—if oilfired water heaters are not made available to the public at an installed price of $200. These men do not say the water heaters sold on this basis will be profitable. They don't say that no loss will be incurred. They just say what they find is best for the future of oilheating.

This article has been urging FO&OH readers to wake up to the importance of oilfired water heaters. Here's a letter from an oilheating equipment manufacturer who woke up to this importance three years ago:

"About three years ago, we brought out our first Hi-Recovery oilfired water heater, to use No. 2 fueloil, and to sell for slightly less than $200. We sold one or two a month.

"That opened up a new market for us. Today we sell about 200 oilfired water heaters per month, including glass-lined, copper-lined, ASME galvanized, twin-coil tankless heaters for up to 5,000 gallons-per-hour, and a line of ASME Hi-Test heaters for storage tanks in motels, hotels, and apartment houses.

"Our glass-lined oilfired water heaters are sold to dealers at from $165 to $174, depending on details of controls."

Here's another letter from a manufacturer of oilheating equipment:

"Our Model BRGL oilfired water heater is 30-gallon size. It is glass-lined, has a stack control, and has a fast-acting hot-water temperature control which has the special feature of a stop that does not permit setting it higher than 160°F.

"With reference to price, our suggested installed price is $200.

"We are pleased to advise that the oilfired water heaters we have been marketing during the last two years have been widely accepted by large developments using forced-air central heating and cooling units; thereby saving the builders the cost of running gas mains into their developments. We feel that our sales of this particular oilfired water heater model will increase two-fold over our sales of last year, thanks to this factor of the builders saving the costs of running the gas mains into their developments.

"Our equipment is available to dealers through any legitimate jobber in the country."

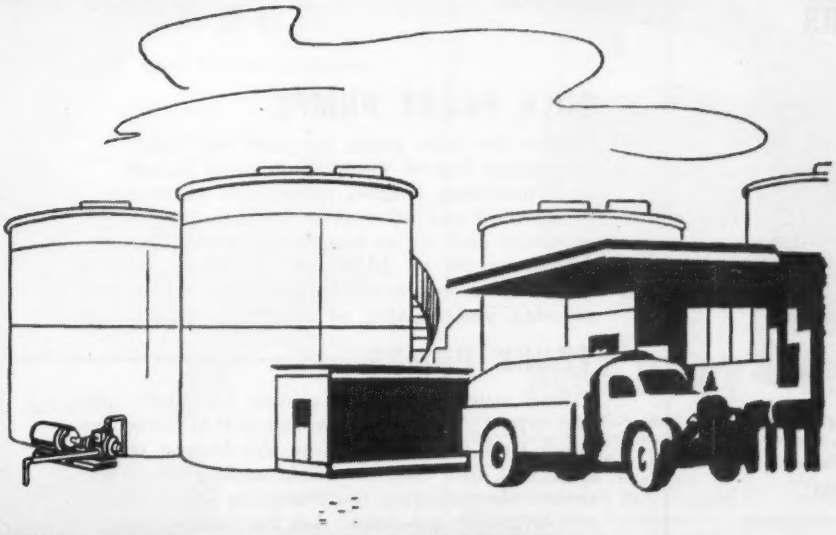
The two manufacturers from whom the preceding letters came plainly are pleased that they recently "Got in hot water." Their experiences are not unique. Letters have come in from many other manufacturers who are glad they got in hot water.

The point of this article is that the oilheating industry at large, and the fueloil industry at large, need to do more about getting in hot water. Local oilheating equipment dealers, and local fueloil suppliers, should do far more than they now are doing to push the sale of oilfired water heaters. Upon this, according to expert opinion, rests much of the future of oilheating.

Over Half a Century of Experience to give you years of DEPENDABLE PERFORMANCE

Blackmer's growth has been earned by the development and manufacture of products backed by over 50 years of continuous laboratory and field research. These products include bulk pumps, truck pumps, hand pumps and strainers. Blackmer's advanced design, smooth operation, economy and flexibility of use . . . have been performance proved for over half a century. Wherever liquids are handled, Blackmer pumps are known for quality, dependability and record durability. Simple basic design of all components assures trouble-free service and freedom from maintenance problems. You'll find our engineers can solve your liquid materials handling problems . . . write for more details today!

BLACKMER ROTARY PUMPS



Industrial, Hand and Truck Pumps, Strainers, Pressure Control Valves
BLACKMER PUMP COMPANY, GRAND RAPIDS 9, MICH.
DIVISION SALES OFFICES — NEW YORK • ATLANTA • CHICAGO
GRAND RAPIDS • DALLAS • WASHINGTON • SAN FRANCISCO
See Yellow pages for your local sales representative

BLACKMER PUMPS

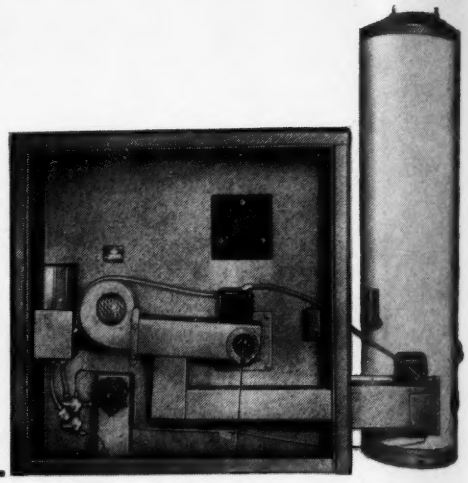
"liquid materials handling"® equipment

BLACKMER

WALTHAM *Constant-Flow*

the FURNACE with

Year Round Domestic HOT WATER The Big HIT of the Boston Show!



***ONE* ducted WALTHAM Jet-Head oilburner fires *both* units! Highly efficient. Long-life glass-lined tank. Excellent recovery rate: 120 gal. per hr. at 100° rise. Get full facts Now!**

WALTHAM OIL BURNER CO. Inc. East Boston, Mass.

Carolina Meeting

(*Begins on page 64*)

under Government controls there can't be many new barns. L. P. Gas has cut in a little, with estimates ranging from 5 to 10% of the barns using it. He described the 1956 cooperative advertising program for oil curing and believes this did a lot of good as they saw little loss to gas in that year. The investment was $8,000 in television programs, paid for by local oil men of ten counties.

Because of the cancer scare and the switch to filtered cigarettes the growers must go back to old type tobaccos with stronger flavor but with 30% less yield per acre.

Berry, the final panelist, told of the Piedmont area's cooperative ad campaign covering 12 counties running generally from Raleigh to Charlotte.

Gas first came to this area in 1950, sold $2 million for heating that year, but nine million in 1957. The 12 counties have 75% of the states population although there are 100 total counties in the state.

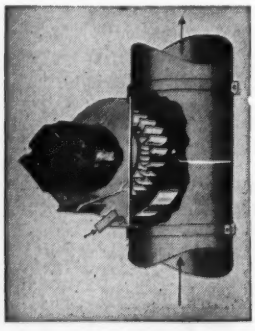
In 15 Piedmont cities Berry finds the gas people taking heating business equivalent to that of four typical oil dealers a year. Most of this is new home work.

❖

Heckler Bros., Pittsburgh, named distributors in southwestern Pennsylvania for the complete line of heating and cooling equipment made by The Heil Co., Milwaukee, Wis.

NEED MORE DRAFT?

TJERNLUND "AUTODRAFT" INDUCERS



- Positive venturi action
- Simplified installation
- Heavy duty construction
- Installs vertically or horizontally
- Complete range of sizes
- Immediate delivery

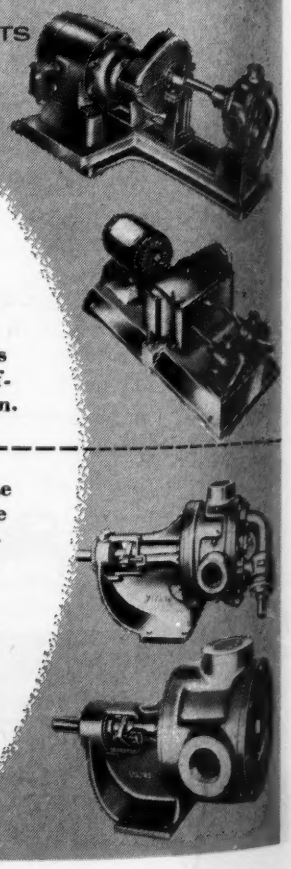
Guaranteed Draft with "Auto-Draft"

TJERNLUND MFG. CO.

2140 Kaseta Ave., St. Paul 14, Minn.

IT'S VIKING ALL THE WAY

FOR PUMPING PETROLEUM PRODUCTS



BULK PLANT PUMPS

Choose the right pump for your job from a complete line of Viking bulk plant pumps . . . including singles, twins, and multiples in standard and all-weather construction, conventional packing or mechanical seals. Capacities from 50 to 1050 G.P.M. Many models Underwriters approved. All are positive, fast, self-priming and capable of stripping tanks clean.

TRUCK PUMPS

Viking truck mounting pumps for every size and type . . . from 35 to 300 G.P.M.—for the small fuel delivery truck to the biggest transport. All do a fast, smooth pumping job, with thousands outlasting the trucks on which they are originally mounted. Ask for catalog Gee, and SP-377ee.

VIKING PUMP CO.

Cedar Falls, Iowa, U.S.A.

In Canada, it's "*ROTO-KING*" pumps

Offices and Distributors in Principal Cities
See Your Classified Telephone Directory

KNOWN THE WIDE WORLD OVER

RAY BURNER

10,000 RAY BURNERS NOW OPERATING IN ALL PARTS OF THE WORLD

A Mechanical Masterpiece

That

Burns Cheapest Grades of Fuel Oil

Made in over 30 different sizes and shapes
See Our New BABY BURNER For Homes
In Full or Semi-Automatic Types

DISTRIBUTORS AT

Boston	Jacksonville	New Orleans	Des Moines	Chicago
New York	Providence	Kansas City	El Paso	Vancouver
Philadelphia	Hartford	St. Louis	Minneapolis	Toronto
Baltimore	Bridgeport	Omaha	Great Falls	Los Angeles
Washington	Cleveland	Dallas	Seattle	Sioux City
Atlanta	Detroit	Houston	Portland	Mexico City

W. S. RAY MANUFACTURING CO.

722 So. Michigan Ave., Chicago — 120 New Montgomery St., San Francisco, California

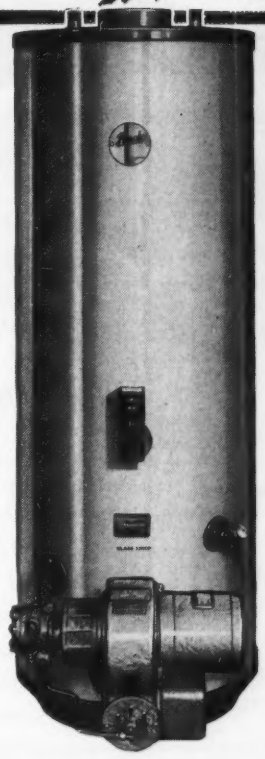
The above ad appeared in the October, 1922 issue of FUEL OIL magazine—one of the first burner ads ever run in the magazine!

THEN, AS NOW, THE WORLD LEADER
IN OIL, GAS AND COMBINATION GAS-OIL BURNERS

Ray Burner Company

1301 San Jose Avenue, San Francisco, California
629 Grove Street, Jersey City, New Jersey

Glass Lined WATER HEATERS



30 - 50 - 70 Gallons Storage

- A size to meet every home requirement. Uses pressure burner, number 2 oil, and sells at popular prices. Every feature for volume sales.
- Also made in a booster model with large pipe connections for use with an extra storage tank. This model is also suitable as a booster for 180 degree water.

Bock Corporation

110 S. Dickinson St. • Madison 4, Wis.

NOW there are 14 Vaporite MODELS

. . . a size and type Humidifier for every furnace installation.

SERIES 555
Fits any straight side warm air furnace.

Corrosion resistant, stainless steel vapor pan 4" x 15". Completely assembled for quick and easy installation.

New copper overflow on Model 555C.

New sensitive thermostats assure balanced humidity.

SERIES 577
Stainless steel. Adjustable to sloping or straight bonnet furnaces. Pre-assembly cuts labor time and installing costs.

WRITE FOR CATALOG FO-7

AUTOMATIC HUMIDIFIER CO, Cedar Falls, Iowa.

More for your Money in **MORYSVILLE**

Morysville U-2 for ½, ¾ or 1 ton chassis

BEST BODY - BEST BUY

- 14 and 16 ga. Body Steel (14 ga. throughout for models rated 1 ton up—19 ga. doors)
- 12 ga. Diamond Floor Plate
- Heavy U-Channel Understructure
- Electric Welded throughout
- Telescoping Roof and Hinged Gate
- Full-length Hinges with Brass Pins
- Solidly Framed Doors and Panels
- Recessed, Spring-loaded Latches with Individual Locks or Master Locking Device
- Fendix Undercoating (No Extra Charge)

IMMEDIATE DELIVERY • Distributors in Principal Cities

"BODIES YOU CAN DEPEND ON" TO LAST INDEFINITELY

MORYSVILLE Body Works INC.

Auburn Equipment SAVES USERS MONEY THROUGH BETTER PERFORMANCE LOWER INVESTMENT

MORE MONEY FOR EVERYONE!

Auburn Makes You More Money BY GIVING YOU MORE TO SELL GREATER VALUES FINER EQUIPMENT

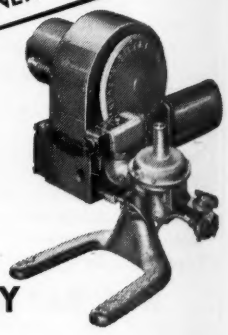
HORIZONTAL SUSPENDED — HIBOYS AND COUNTERFLO'S. OIL OR GAS FURNACES, 24 MODELS, CAPACITIES 120M to 500M— 10 years guarantee COMBUSTION CHAMBER & HEAT EXCHANGER.

★ NEW POWER GAS BURNERS 700 M TO 750 M

★ IMPROVED OIL BURNERS

★ STEEL FURNACES

WRITE FOR COMPLETE DETAILS ON AMERICA'S FASTEST GROWING LINE OF HEATING EQUIPMENT



THE AUBURN BURNER COMPANY

EDGERTON, OHIO

Oilheating Week in Boston

(*Begins on page 67*)

The board then authorized the managing director to negotiate a renewal on the office lease which expires next April . . . also to continue the pension to former Secretary C. F. Curtin of $1,500 plus an extra $600.

The entire New York OHI staff will be on vacation for two weeks beginning August 3.

Lawrence Sibley, reporting for the Commercial-Industrial Div., pointed out that the commercial oilheating course at the Springfield (Mass.) Trade High School is going well and that all graduates have been placed in jobs.

The ASH&AE Guide Committee of this division has its new material about ready for the commercial oilburning section, but this will not appear in the Guide until its 1959 edition.

Because the discussions had lasted until a late hour, several of the committees or sections did not verbally report, but filed data for mail distribution to the membership at a later date.

The next meeting of the Board will be at The Homestead, Hot Springs, Virginia, September 4, 5 and 6, 1957. The annual convention and exposition next year will be at New York's Coliseum June 9-13, 1958. The annual convention in 1959 will be in Seattle, to be coupled with a local exposition of products. The exact dates are to be announced.

❖

M. C. Reed has been elected president, Dunkirk Radiator Corp., Dunkirk, N. Y., succeeding the late L. N. Murray. He joined the company in 1938 and served the company most recently as vice-president, sales.

Igniter and Aladdin Lamp Awards made at the annual OHI Luncheon

PRESENTATION of Igniters' Awards and Aladdin Lamps featured the annual OHI luncheon on June 6. Fred Heaney, toastmaster, presided at the affair, which drew an attendance of 382. He made these awards:

IGNITER AWARDS:

C. Everett Elliott, Charles L. Elliott Co., Danvers, Mass.

T. R. Loizeaux, Plainfield, N. J.

B. L. Ray, Esso Standard Oil Co., New York, N. Y.

Douglas W. Smith, Standard Oil Co. of Calif., San Francisco.

Francis J. Schuster, Troy Oil Co., Indianapolis, Ind.

William F. Kenny, Meenan Oil Co., New York.

ALADDIN LAMPS:

P. G. Crewe, Webster Electric Co., Racine, Wis.

G. M. Marin, Sun-Ray Burner Mfg. Co., Jamaica, N. J.

Fred Heaney, Skagg-W-Walsh, Inc., Long Island City, N. Y.

(Presentation made by Verne Resek, newly-elected president of the Institute).

Condensations of the citations read during the awards will be published in the August issue.

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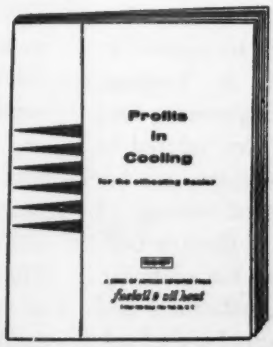

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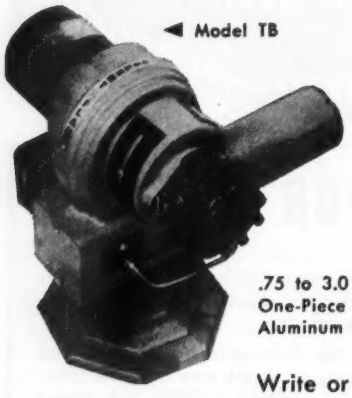

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The first 35 Years

(*Begins on page 49*)

the competitive advantage those holders of basic patents surrendered for the common good, we can only salute their farsighted, unselfish vision. They were not persuaded in a day. It took extraordinary patience, cajolery, and many meetings where there was considerably more heat than light.

In the fall of 1923, we made our first trip to New York to visit our advertisers and some Association members in their native habitat. Among the places we visited was the Architect's Samples Corporation showroom, at 101 Park Avenue. Here, gathered in one place, were new or improved appliances and products used in the home or in home construction, for architects and homeowners to see. We liked the idea. We thought we'd like to set up a similar display on a limited scale, of course, in our cavernous offices on the top floor of the Bank of Galesburg building.

Back home we sent out letters to our advertisers. They liked the idea, or most of them did. The response was terrific. For days we were in constant telephonic communication with the CB&Q freight office. It would be hard to say how much of *Fuel Oil's* meager profits that year went to drayage companies. The exhibit looked impressive. Advertisers who visited our office liked it.

We were pleased, and doing all right until Jim Breeze sent us one of his new horizontal oilburning boilers. We were not dismayed, even though it did look to be just a shade under the size of tank trucks in use at that time. But the building superintendent intervened—he flatly refused to let it be brought up. In the first place, the elevator wasn't large enough to carry it, and the wooden floor of the office was not strong enough to support it. Our good friend, H. A. Tedman, Winslow Boiler and Engineering Co., with a gleam in his eyes, offered to store it for us. Thus began, we believe, some unscheduled testing of Kleen Heet with one of the first boilers especially designed for oil-firing.

In the early years, oilburners had to be designed and adapted to the fuel-oil supplied to them, rather than oil companies adapting their fueloil to their customer's burners. This surprising lack of interest on the part of most major oil companies in oilburners, which today consume a major portion of the products refined from a barrel of crude, has been characteristic as far back as we can recall. Notable exceptions to this attitude have been Shell Oil Company and Cities Service, under Henry L. Doherty's interest and prodding.

Much of the early activities of *Fuel Oil* and the Association are so entwined it is difficult to separate them into individual entities. The newness of the industry, the limited capital of many of the early manufacturers of domestic oilburners and auxiliary equipment dictated modest membership dues, if it were to survive and grow in strength and effectiveness. Headquarters of the Association for the first few years of its existence were maintained in space provided in *Fuel Oil's* office. We remember well the day adequate funds in the Association treasury warranted the purchase of a typewriter and the hiring of a typist of its own.

All Things change

Through the years changes come to magazines as to people. In August 1924 *Fuel Oil for Heat and Power* was moved to New York. Soon thereafter its name was changed to *Fueloil Journal*. We can still hear the anguished, outraged cry that went up from our subscribers when we enlarged *Fuel Oil* from its original pocket size to standard size. We knew we had then, as now, close touch with our subscribers, and their indignant letters confirmed it.

It seems that when the servicemen pulled on their coveralls, they put a copy or copies of *Fuel Oil* in the pocket of same—not so much to provide reading material between jobs, but rather, some do-it-yourself service and installation guidance from its pages as they went their appointed rounds. Their indignation was matched only by the delight of our advertisers who now had more space in which to tell the merits of their products. In retrospect, we like to

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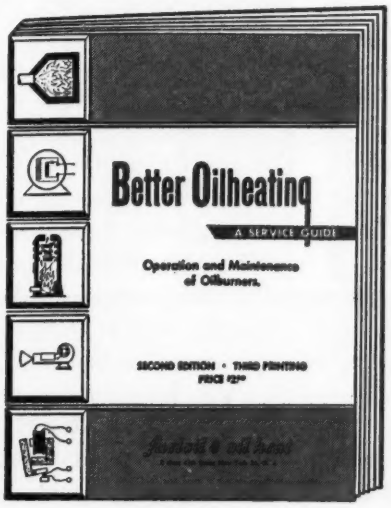

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think of *Fuel Oil for Heat and Power* as the granddaddy of the popular Pocket Books of today.

It wasn't all hardheaded business with the pioneers of this industry. Many took time for hobbies. We've walked over to Lake Merritt in Oakland with J. C. Johnson, where he customarily went on his noon hour, to feed the birds who collected there. We've visited Milton Ray in his palatial home atop Pacific Heights in San Francisco, and seen his valuable and extensive collection of rare bird eggs which occupied almost the whole fourth floor.

We've read and enjoyed Uncle Charley Chalmers' poetry—some of it very good, and some of it providing the good-natured chuckles the situation needed. We've also admired his spunk, when at 72, not being one to think he knew it all, he decided to go back to the University of Minnesota (from which he'd graduated in 1894) and take a "refresher" course. Alex Doster's annual clambakes are still affectionately remembered.

Ed Bailey and Lionel Jacobs made their families their hobby, and their children and grandchildren are living proof it was a good one. We remember the convention when smiling Jim Owens and his pretty wife first joined us. And there were pleasant visits with Harold Sweatt who usually stopped to call en route to or from Europe. There are many more—only these we've shared.

We know that others who have been around as long as we have will recall that invariably when as many as five members of the industry held a meeting, there also would be Homer Linn of American Radiator and Dick Wotowich of Cities Service. They lent not only their experience and unfailing good humor in resolving many of the knotty problems besetting the oilburner industry in its infancy, but also a touch of great sartorial elegance.

Our remembrance of the past has been confined to the years of 1922-24. To arrive at our present day masthead of FUELOIL & OIL HEAT, we need to mention a noteworthy event of May 1942, when *Fueloil Journal* and *Airconditioning and Oil Heat* were merged.

Oil Heat had been established in 1928 by P. E. Fansler, a man of many talents, who as longtime editor of *Heating and Ventilating* magazine, was already a recognized authority in the heating field. Following his death, A. G. Winkler and A. E. Coburn assumed ownership and, ably assisted by Bert Dunphy, successfully carried on publication of *Oil Heat*.

This merger brought together the leading papers in the field. Under the editorial leadership of Robert Gray (of whom our reminiscences go back to teenage days in Kansas) they have continued to point the way to a more stable and prosperous industry, while mirroring the progress and accomplishments of an industry with which they have been privileged to grow for 35 years. FUELOIL & OIL HEAT continues its founding precept—"Devoted to the progress of oilheating and airconditioning."

It has been fun. We've been glad to be board. We are looking forward to the next 35 years!

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